ORDER NO. MD9806121C2

# Service Manual

COMPACT disc DIGITAL AUDIO

MASH*1 multi-stage noise shaping

*2 DOLBY B NR

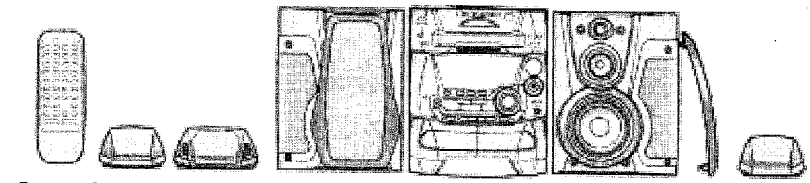
*3 DOLBY SURROUND PRO • LOGIC

CD Stereo System

# SA-AK55

**Colour**

(S) ... Silver Type



Remote Control Transmitter SB-PS55 SB-PC55 SB-AK55 SA-AK55 SB-AK55 SB-PS55

**Area**

| Suffix for Model No. | Area | Colour |
|---|---|---|
| (EE) | Russia and Ukraine | (S) |

| System | Music Center | Speaker | Center Speaker | Surround Speaker |
|---|---|---|---|---|
| SC-AK55 (EE) | SA-AK55 (EE) | SB-AK55 (GC) | SB-PC55 (GC1) | SB-PS55 (GC1) |

*1 MASH is a trademark of NTT.

*2 Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

*3 Manufactured under license from Dolby Laboratories Licensing Corporation.
DOLBY, the double-D symbol and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

## TAPE SECTION : AR2 MECHANISM SERIES
## CD SECTION : RAE0152Z-2 TRAVERSE DECK SERIES

## ■ Specifications

### ■ Amplifier Section

| | |
|---|---|
| **Front speaker power output** | |
| **RMS power output** | |
| **THD 10%, both channels driven** | 105W per channel (6Ω) |
| **1 kHzcontinuous power output** | |
| **THD 1%both channel driven** | 70W per channel (6Ω) |
| **Power output in** | |
| **Doldy Pro Logic mode** | |
| **RMS power output** | |
| **THD 10% both channel driven** | |
| **Front** | 105W per channel (6Ω) |
| **Center** | 45W per channel (8Ω) |
| **Surround** | 22.5W per channel (4Ω) |
| **Total power output** | 300W |
| **1 kHz continuous power output** | |
| **THD 1% both channel driven** | |
| **Front** | 70W per channel (6Ω) |
| **Center** | 35W per channel (8Ω) |
| **Surround** | 17.5W per channel (4Ω) |
| **Total power output** | 210W |
| **Input sensitivity and impedance** | |
| **AUX** | 250mV,10KΩ |

### ■ Cassette Deck Section

| | |
|---|---|
| **Track system** | 4 track, 2 channel |
| **Heads** | |
| **Record/playback** | Solid permalloy head |
| **Erasure** | Double gap ferrite head |
| **Motor** | DC servo motor |
| **Recording system** | AC bias 100 kHz |
| **Erasing system** | AC erase |
| **Tape speed** | 4.8 cm/s |
| **Frequency response (+3, -6 dB at DECK OUT)** | |
| **NORMAL (TYPE I)** | 35 Hz – 14 kHz |
| **HIGH (TYPE II)** | 35 Hz – 14 kHz |
| **S/N** | |
| **Dolby NR off** | 50dB(A weighted) |
| **Dolby NR on** | 60dB(CCIR) |
| **Wow and flutter** | 0.18 % (WRMS) |
| **Fast forward and rewind time** | Approx. 120 seconds with C-60 cassette tape |

### ■ FM Tuner Section

| | |
|---|---|
| **Frequency range** | 87.5 – 108.0 MHz (50 kHz steps) |
| **Sensitivity** | |
| **S/N 26dB** | 1.5 µV |
| **Antenna terminal(s)** | 75 Ω (unbalanced) |

### ■ AM Tuner Section

| | |
|---|---|
| **Frequency range** | 522 – 1629 kHz (9kHz/Step) |
| **Sensitivity** | |
| **S/N 20 dB** | 500 µV/m |

### ■ CD Section

| | |
|---|---|
| **Sampling frequency** | 44.1 kHz |
| **Decoding** | 16 bit linear |
| **Beam source/wave length** | Semiconductor laser / 780 nm |
| **Number of channels** | Stereo |
| **Frequency response** | 20Hz – 20kHz (+1dB, -2dB) |
| **Wow and flutter** | Below measurable limit |
| **Digital filter** | 8 fs |
| **D/A converter** | MASH (1 bit DAC) |

Panasonic®

© 1998 Matsushita Electronics (S) Pte. Ltd.
All rights reserved. Unauthorized copying and distribution is a violation of law.

**⚠ WARNING**

This service information is designed for experiense repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

## General

| | |
|---|---|
| **Power consumption** | 168W |
| **Power supply** | AC 230V, 50Hz |
| **Dimensions (W x H x D)** | 270 x 336 x 347 mm |
| **Weight** | 8 kg |

**Notes :**

1. Specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

## Contents


| | Page |
|---|---|
| BEFORE REPAIR AND ADJUSTMENT | 2 |
| PROTECTION CIRCUITRY | 2 |
| BEFORE MOVING OR SHIPPING THIS UNIT | 2 |
| HANDLING PRECAUTIONS FOR TRAVERSE DECK | 3 |
| PRECAUTION OF LASER DIODE | 3 |
| SETTING THE TIME | 4 |
| ACCESSORIES | 5 |
| CONNECTIONS | 5 & 6 |
| LOCATION OF CONTROLS | 6 & 7 |
| RECORDING FROM RADIO BROADCASTS | 8 |
| RECORDING FROM COMPACT DISCS | 9 & 10 |
| TAPE-TO-TAPE RECORDING | 11 |
| OPERATION CHECKS AND MAIN COMPONENT REPLACEMENT | 11 ~ 16 |
| SELF-DIAGNOSTIC DISPLAY FUNCTION | 17 |
| DESCRIPTION OF ERROR CODE | 18 |
| CD TEST MODE FUNCTION | 19 |
| MEASUREMENTS AND ADJUSTMENTS | 20 & 21 |
| TERMINAL GUIDE OF ICs, TRANSISTORS & DIODES | 22 |
| TERMINAL FUNCTION OF ICs | 23 ~ 25 |
| SCHEMATIC DIAGRAM | 26 ~ 42 |
| BLOCK DIAGRAM | 43 ~ 50 |
| PRINTED CIRCUIT BOARD | 51 ~ 58 |
| WIRING CONNECTION DIAGRAM | 59 |
| TROUBLESHOOTING GUIDE | 60 |
| MECHANISM PARTS LOCATION (RAA3406) | 61 & 62 |
| MECHANISM PARTS LIST | 63 |
| LOADING MECHANISM PARTS LIST | 63 |
| CD LOADING UNIT PARTS LOCATION | 64 |
| CABINET PARTS LOCATION | 65 & 66 |
| REPLACEMENT PARTS LIST | 67 ~ 70 |
| RESISTORS & CAPACITORS | 70 ~ 76 |
| PACKING MATERIALS & ACCESSORIES | 76 |
| PACKAGING | 76 |


## Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C504 ~ C507 through a 10Ω , 5W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at AC 230V, 50 Hz in NO SIGNAL mode should be ~400mA.

## Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.
If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

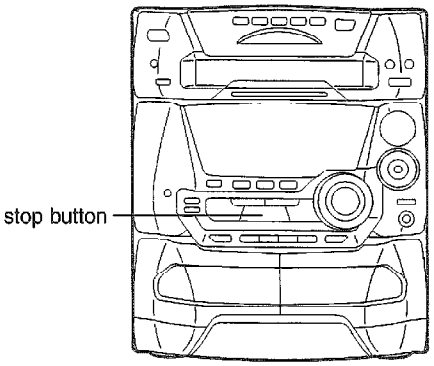
**Note:**
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

## Before Moving or Shipping This Unit

Before moving or shipping this system:
Prepare the system as described below to prevent damage to the mechanism.

1. Remove all CDs.
2. Press CD.
3. Press stop button ( ■ ) for 5 seconds. The display will change from "WAIT" to "LOCKED" to "GOOD BYE" and finally "ZZZ". Then the unit will be turned off automatically. (This will set the so-called "shipping mode".)
4. Unplug the system. The shipping mode will turn off automatically when you turn the power on the next time.

Avoid strong vibrations or impact while moving the equipment. The shipping mode will turn OFF automatically when you turn the power ON the next time.

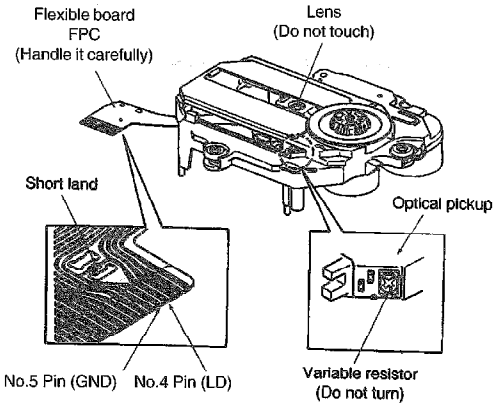


# Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.
So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

### • Handling of traverse deck (optical pickup)

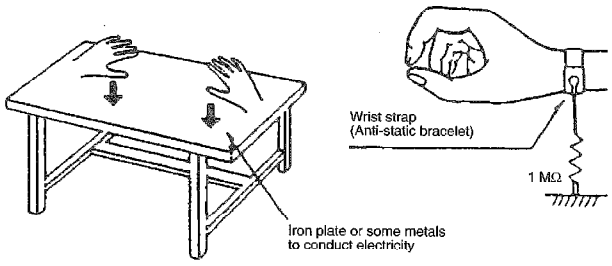
1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. The short land between the No.4 (LD) and No.5 (GND) pins on the flexible board (FPC) is shorted with a solder build-up to prevent damage to the laser diode.
   To connect to the PC board, be sure to open by removing the solder build-up, and finish the work quickly.
3. Take care not to apply excessive stress to the flexible board (FPC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.




### • Grounding for electrostatic breakdown prevention

1. Human body grounding
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

**Caution :**
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).




# Precaution of Laser Diode

**CAUTION :** This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.
Wavelength : 780 nm
Maximum output radiation power from pick up : 100 μW/VDE

Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

**ACHTUNG:** Dieses produkt enthält eine laserdiode. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit abgestrahlt.

Wellenlänge : 780nm
Maximale strahlungsleistung der lasereinheit :100μW/VDE

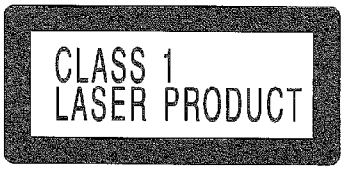
Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode gefährlich ist.
2. Den werkseitig justierten einstellregler der lasereinhit nicht verstellen.
3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
4. Nicht über längere zeit in die fokussierlinse blicken.

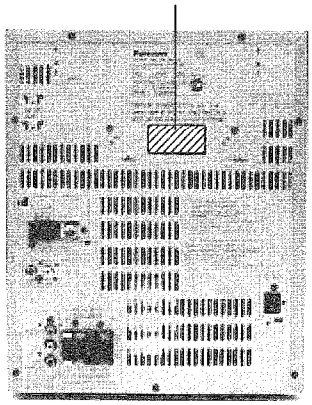
**ADVARSEL: I dette a apparat anvendes laser.**

**CAUTION!**
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

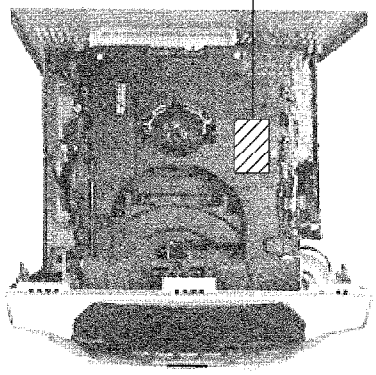
## Use of Caution Labels



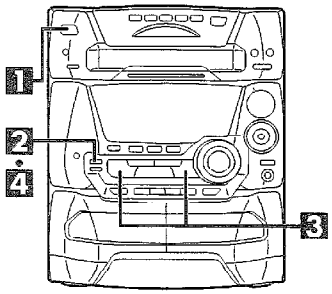

**LUOKAN 1 LASERLAITE**
**KLASS 1 LASER APPARAT**

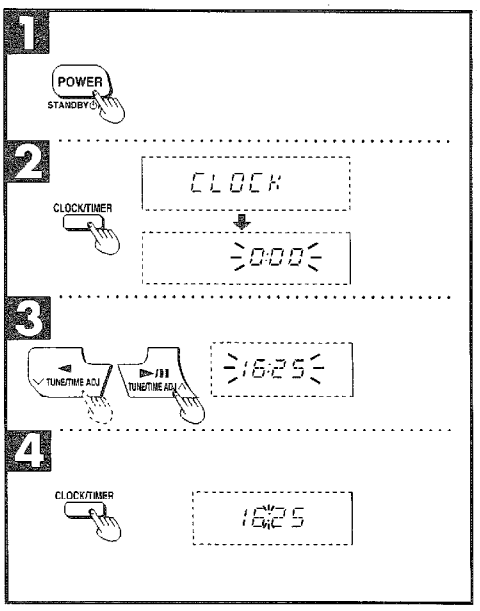


| | |
|---|---|
| DANGER | INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. |
| ADVARSEL | USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING. |
| VARO! | AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN. |
| VARNING | OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN. |
| ADVARSEL | USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN. |
| VORSICHT | UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN. |



## Setting The Time




This is a 24-hour display clock.
This example in the figure shows how to set the time for 16:25 (4:25 p.m.).

**1 Switch on the power.**

**2 Press CLOCK/TIMER to select "CLOCK".**
Every time you press the button;

CLOCK→ PLAY→ REC
↑—Previous display←—┘

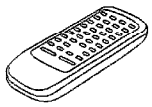
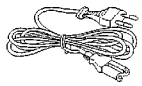
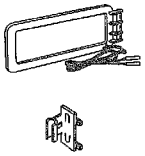
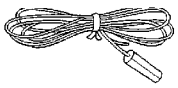
**3 (within 7 seconds or so)**
**Press ∨ or ∧ to show the present time.**

**4 Press CLOCK/TIMER to finish setting the time.**
The display will return to whatever was displayed before you set the time.

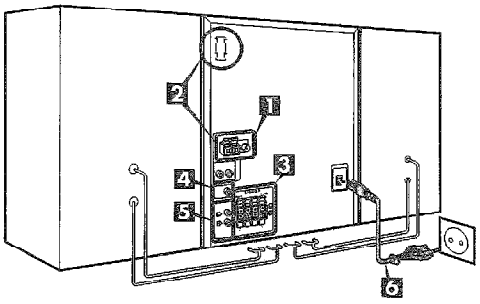
---

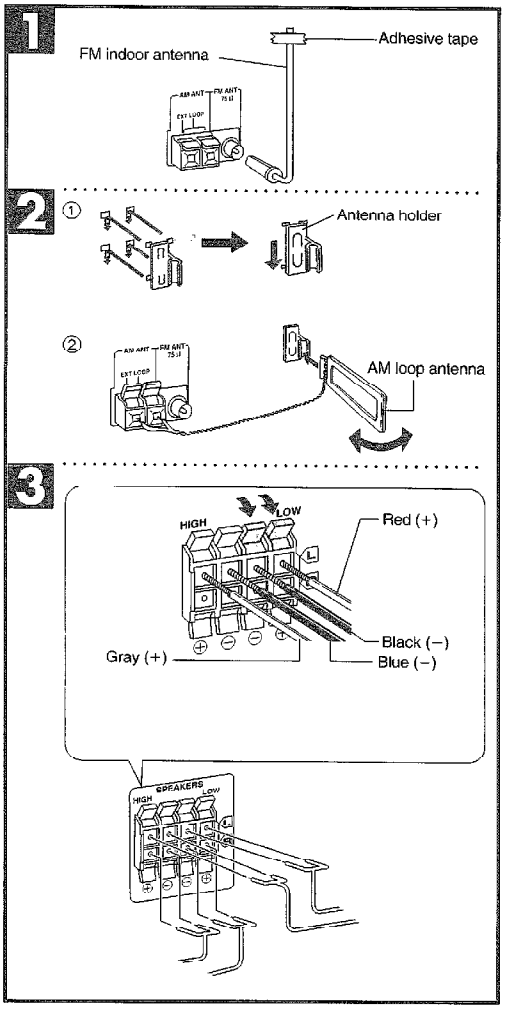
**To display the time when power is ON**
Press CLOCK/TIMER to select "CLOCK".
The time will be displayed for about 5 seconds and then the display will return to whatever was previously displayed.

## Accessories

| EUR644854 | RJA0019-2K | RSA0022 | RSA0007 |
|---|---|---|---|
|  |  |  |  |

## Connections






### Basic connections (for supplied accessories)

- Plug the AC power cord into a household AC outlet only after all other connections have been made.
- To prepare the AM loop antenna wire and speaker cords, twist the vinyl cover tip and pull off.

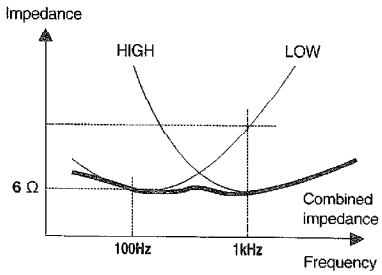
**1 Connect the FM indoor antenna.**
Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

Note
**For best reception sound quality:**
An FM outdoor antenna is recommended.

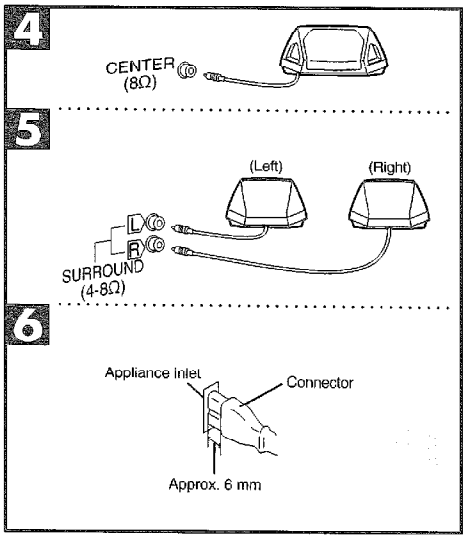
**2 Connect the AM loop antenna.**
After attaching the antenna, turn on the system and tune in a broadcast station. Then, turn the antenna to the angle of best reception and least interference.

**3 Connect the front speaker cables.**
Connect each end of the speaker cables to the terminal lever of the same color.

**When speakers are connected to the low and high terminals on the back of the main unit**
They are designed to have a combined impedance of 6Ω.
Be sure to use only the speakers supplied.




Caution
- Never use speakers other than those supplied. For instance, if you connect speakers with an impedance of 6Ω each and plug them into the low and high terminals, you will only have a combined impedance of 3Ω.
- To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.




### 4 Connect the center speaker.

### 5 Connect the surround speaker cables.

Note

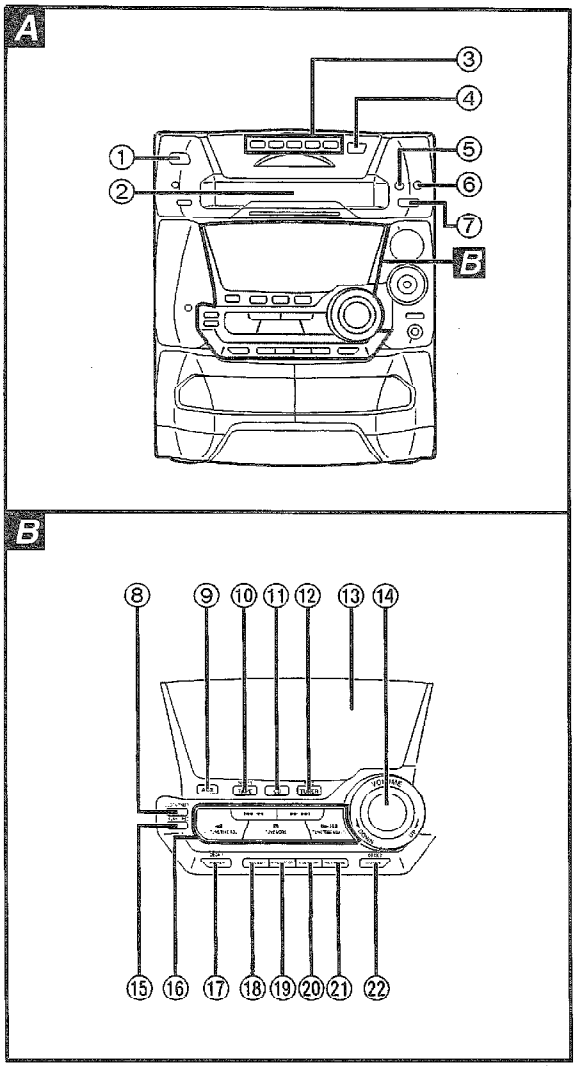
If only one of the surround speakers is connected, no sound will come out. Be sure to connect both speakers.

### 6 Connect the AC power cord.

**Insertion of connector**

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.
However there is no problem using the unit.

## Location of Controls




**Main unit A**

| No. | Name |
|---|---|

① **Power "STANDBY ⏻/ON" switch (POWER, STANDBY ⏻/ON)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

② **Disc tray**

③ **Disc select buttons and indicators (DISC 1–DISC 5)**

④ **CD manager button (CD MANAGER)**

⑤ **Disc tray open/close button (⏏ OPEN/CLOSE)**

⑥ **Disc check open button (⏏ NEXT OPEN)**

⑦ **Random play button (RANDOM)**

**Center console B**

⑧ **Clock/timer button (CLOCK/TIMER)**

⑨ **AUX button (AUX)**

⑩ **Tape/deck select button (TAPE, DECK 1/2)**

⑪ **CD button (CD)**

⑫ **Tuner/band select button (TUNER, BAND)**

⑬ **Display**

⑭ **Volume control (VOLUME)**

⑮ **Play timer/record timer button (◴ PLAY/◴ REC)**

⑯ **Basic operating buttons**
Functions change according to the source.

⑰ **Deck 1 open button (⏏ OPEN, DECK 1)**

⑱ **Tape edit button (TAPE EDIT)**

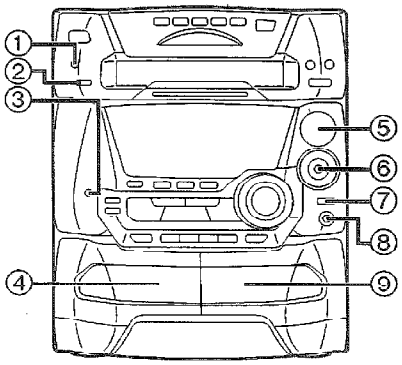
⑲ **Recording start/stop button (● REC/STOP)**

⑳ **DOLBY noise reduction button (DOLBY NR)**

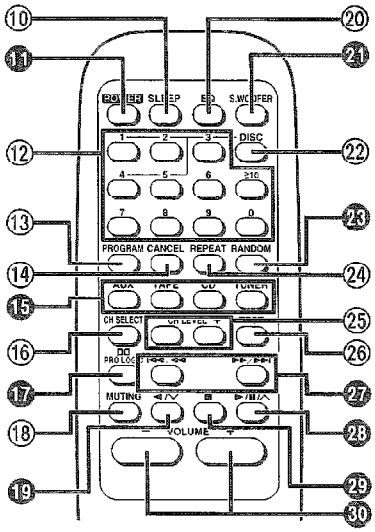
㉑ **Reverse mode select button (REV MODE)**

㉒ **Deck 2 open button (⏏ OPEN, DECK 2)**

A



B




**Main unit (continued) A**

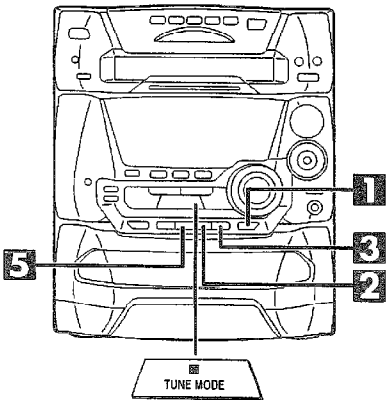
| No. | Name |
|---|---|
| ① | Center mode select button (CENTER MODE) |
| ② | DOLBY PRO LOGIC on/off button (DOLBY PRO LOGIC) |
| ③ | Display select/demonstration button (-DISPLAY/–DEMO) |
| ④ | Deck 1 cassette holder |
| ⑤ | Acoustic image equalizer display (AI EQ) |
| ⑥ | Sound equalizer control/indicators (SOUND EQ) |
| ⑦ | Super woofer on/off button (S. WOOFER) |
| ⑧ | Headphone jack (PHONES) |
| ⑨ | Deck 2 cassette holder |

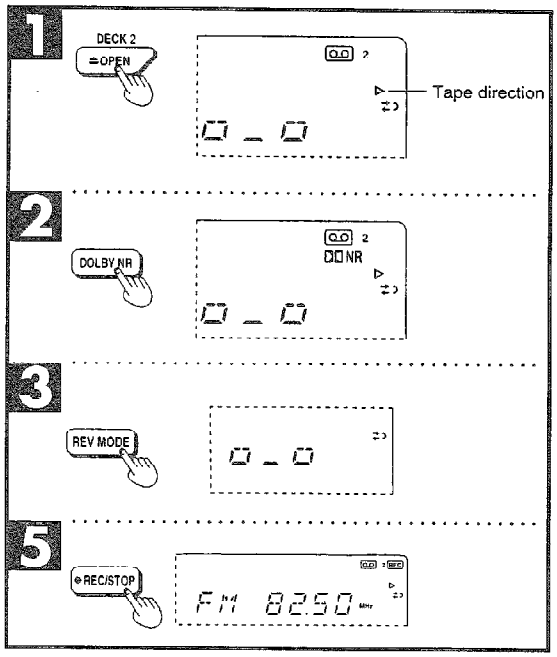
**Remote control B**

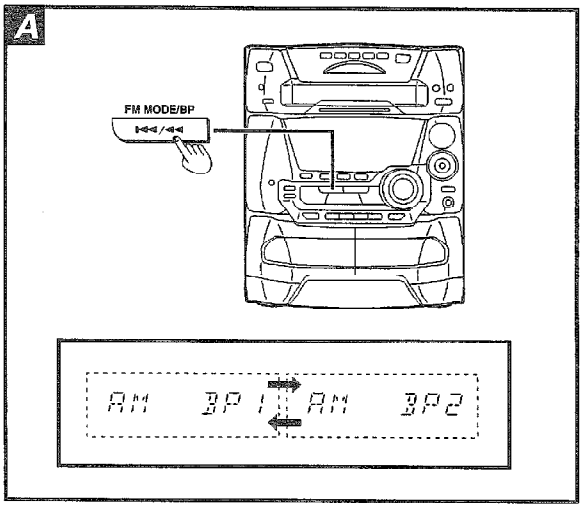
Buttons such as ⑮ function in exactly the same way as the buttons on the main unit.

| No. | Name |
|---|---|
| ⑩ | Sleep button (SLEEP) |
| ⑪ | Power button (POWER) |
| ⑫ | Numeric buttons |
| ⑬ | Program button (PROGRAM) |
| ⑭ | Cancel button (CANCEL) |
| ⑮ | Input selection buttons (AUX, TAPE, CD, TUNER) |
| ⑯ | Channel select button (CH SELECT) |
| ⑰ | DOLBY PRO LOGIC on/off button (□□ PRO LOGIC) |
| ⑱ | Muting button (MUTING) |
| ⑲ | ◀/∨ button (◀/∨) |
| ⑳ | Equalizer button (EQ) |
| ㉑ | Super woofer on/off button (S. WOOFER) |
| ㉒ | Disc button (DISC) |
| ㉓ | Random button (RANDOM) |
| ㉔ | Repeat button (REPEAT) |
| ㉕ | Channel level select buttons (– CH LEVEL +) |
| ㉖ | Test button (TEST) |
| ㉗ | ⏮/◀◀ ▶▶/⏭ buttons (⏮/◀◀ ▶▶/⏭) |
| ㉘ | ▶/⏸/∧ button (▶/⏸/∧) |
| ㉙ | Stop button (■) |
| ㉚ | Volume buttons (– VOLUME +) |

# ■ Recording From Radio Broadcasts




**1 Press DECK 2 ≙ OPEN and insert the tape.**
Close the holder by hand.
Tape direction is automatically set to "▶".

**2 Press DOLBY NR.**
You have to turn Dolby NR ON/OFF according to the type of recording you want to make.
Every time you press the button: DD NR→(OFF)

**3 Press REV MODE to select the reverse mode.**
Every time you press the button;
⇄→⇄→⇄

⇄: One side is recorded, then recording stops automatically.
⇄, ⇄: Both sides (front side→reverse side) are recorded, then recording stops automatically.

**4 Select a radio station.**

**5 Press ● REC/S**
If you selected ⇄ in step 3, the direction will automatically change to ⇄ when recording starts.

---

**To stop recording**
Press ● REC/STOP again.
Recording can also be stopped by pressing ■.

**To start recording on the reverse side**
Load a tape and change the tape direction as following.
1. Press TAPE DECK 1/2 and select tape deck 2.
2. Press ◀ and immediately thereafter ■. The tape direction will be shown as "◀".

**To record from a specific point on a tape**
Before recording, advance the tape to the point from where you want to start recording.

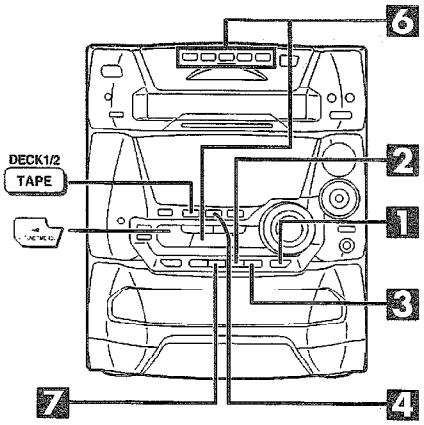
**To cut an unnecessary part while recording**
1. Press ● REC/STOP during the unnecessary part. The cassette deck will go into the stop mode.
2. Press ● REC/STOP to resume recording again. Recording will continue in the same direction as before.

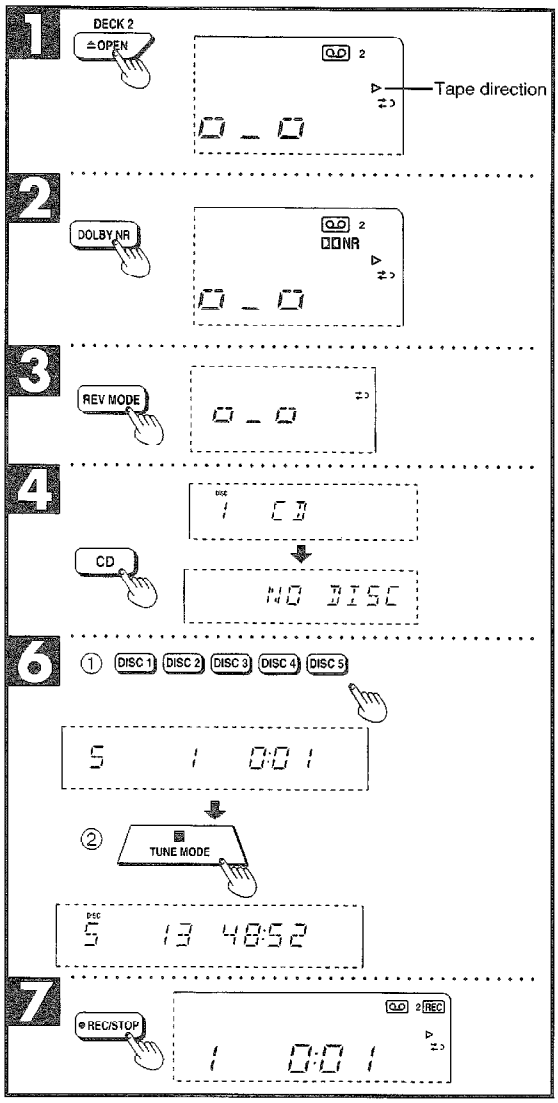
**Note**
When recording an AM broadcast, volume is momentarily interrupted when you start and stop the recording.

**To reduce noise while AM recording (Beat proof function) A**

**Press FM MODE/BP while recording.**
Each time you press the button, BP 1 and BP 2 will be displayed alternately.
Select the position where there is less noise.

# ■ Recording From Compact Discs




**1 Press DECK 2 ≙ OPEN, and then insert the tape.**

Close the holder by hand.
Tape direction is automatically set to "▶".

**2 Press DOLBY NR.**

You have to turn Dolby NR ON/OFF according to the type of recording you want to make.
Every time you press the button: DD NR→(OFF)

**3 Press REV MODE to select the reverse mode.**

Every time you press the button:

⇄→⇄→⇄

⇄: One side is recorded, then recording stops automatically.

⇄, ⇄: Both sides (front side→reverse side) are recorded, then recording stops automatically.

**4 Press CD.**

**5 Load CDs into each of the trays.**

**6 Press DISC 1–DISC 5 to select the disc you want.**

Pressing ■ will stop playback.

**7 Press ● REC/STOP to start recording.**

- If you selected ⇄ in step 3, the direction will automatically change to ⇄ when recording starts.
- The recording will proceed from the first track on the selected CD and will continue on through the last track of the final disc
- The tape deck stops automatically when the CD is finished.

---

**To stop recording**

- To add a 4 second silent interval before stopping.
  Press ■. The CD will stop automatically too.
- To stop recording without a silent interval.
  Press ● REC/STOP. The CD will stop automatically too.

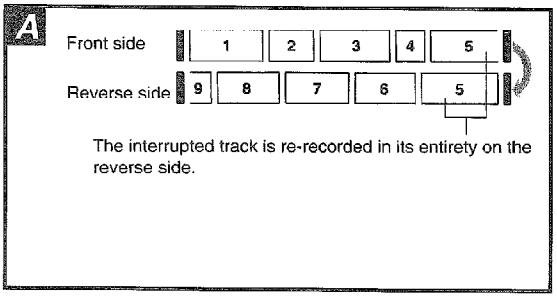
**To start recording on the reverse side**

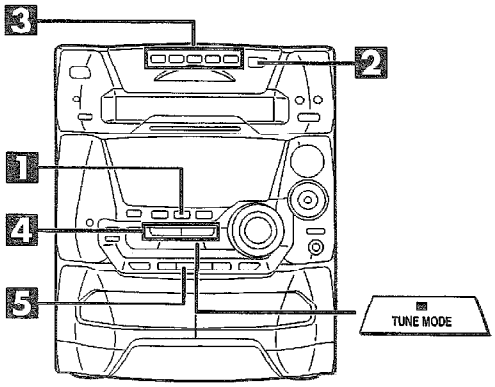
Load a tape and change the tape direction as following.

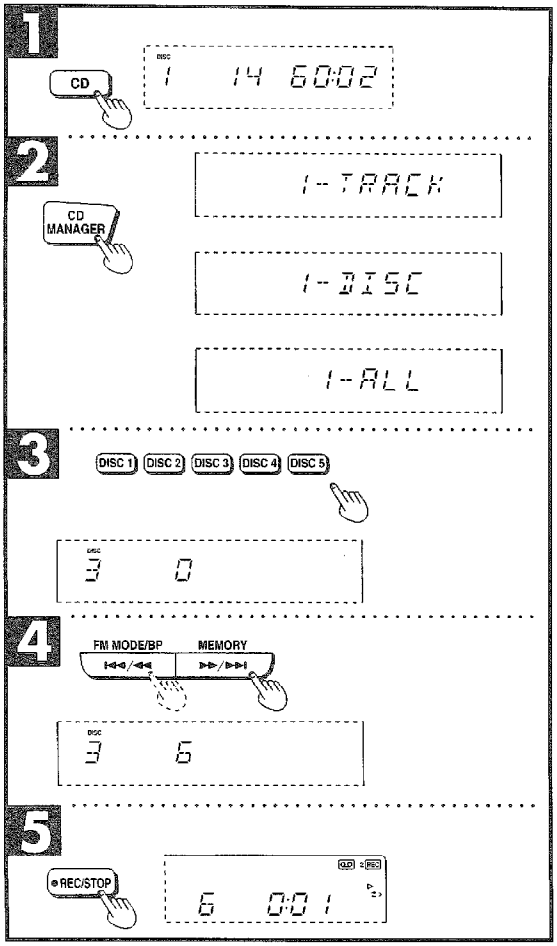
1. Press TAPE DECK 1/2 and select tape deck 2.
2. Press ◀ and immediately thereafter ■ The tape direction will be shown as "◀".

**To record from a specific point on a tape**

Before recording, advance the tape to the point from where you want to start recording.




## To record special CDs and tracks (CD Manager function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.

- While recording, if a track is cut off in the middle at the end of the front side, it is re-recorded from the beginning, on the reverse side. A
- At the end of the reverse side recording stops and the current track will be interrupted.

**Before recording**

Prepare the tape you want to use. Performs steps 1 through 3 on page 23.

**1 Press CD.**

**2 Press CD MANAGER to select the desired mode.**

Every time you press the button;

1-TRACK→1-DISC→1-ALL
↑——NORMAL←——┘
(OFF)

1-TRACK: Only one particular track is recorded.
1-DISC: The tracks on only one particular disc are recorded.
1-ALL: The same track numbers on each of the CDs are recorded in succession.
(NORMAL: The original display is restored in about 3 seconds.)

**3 Press DISC 1–DISC 5 to select the disc you want.**

**Note**

This step is not required if 1-ALL was selected in step 2.

**4 Press ⏮/◀◀ or ▶▶/⏭ to select the desired track.**

**Note**

This step is not required if 1-DISC was selected in step 2.

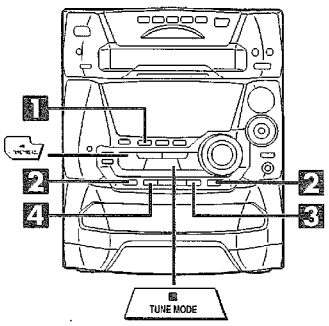
**5 Press ● REC/STOP to start recording.**

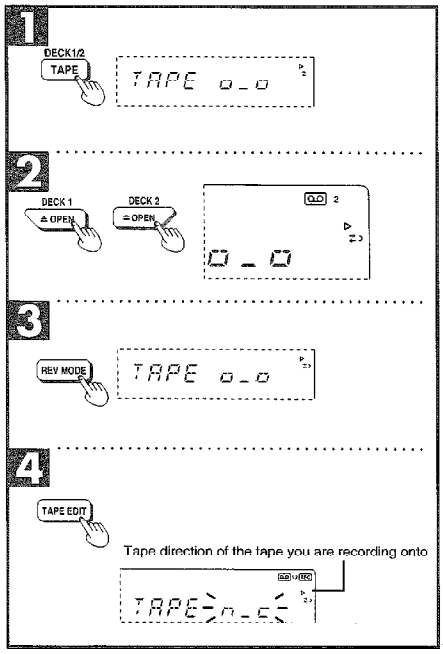
---

**To stop recording**

- To add a 4 second silent interval before stopping
  Press ■. The CD will automatically stop too.
- To stop recording without a silent interval
  Press ● REC/STOP. The CD will stop automatically too.

# ■ Tape-to-Tape Recording




The recording level and the Dolby effect will be recorded as they are on the tape being played back.

**1 Press TAPE.**

**2 Press ≙ OPEN on both decks and insert the tapes.**

For playback: Into deck 1
For recording: Into deck 2
Close the holders by hand.
Tape direction is automatically set to "▶".

**3 Press REV MODE to select the reverse mode.**

Every time you press the button;

⇄ → ⇄ → ⇄

⇄: One side is recorded, then recording stops automatically.
⇄, ⇄: Both sides (front side→reverse side) are recorded, then recording stops automatically.

**4 Press TAPE EDIT to start recording.**

•If you selected ⇄ in step 3, the direction will automatically change to ⇄ when recording starts.

---

**To stop recording:**
Press ■.
Both decks will stop.

**To start recording on the reverse side**
Load a tape and change the tape direction as following.
1. Press TAPE DECK 1/2 and select tape deck 2.
2. Press ◀ and immediately thereafter ■. The tape direction will be shown as "◀".

**To record from a specific point on a tape**
Before recording, advance the tape to the point from where you want to start recording.

# ■ Operation Checks and Main Component Replacement Procedures

**"ATTENTION SERVICER"** Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. **This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**
2. **For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.**
3. **Select items from the following index when checks or replacement are required.**
4. **Refer the Parts No. on the page of "Main Component Replacement Procedures", if necessary.**

**• Contents** page


**• Checking Procedure for each major P.C.B.**
1. Checking of the Main, Panel, Deck, Tuner and Servo P.C.B. ..... 12 & 13
**• Disassembly of the CD Changer Unit** ..... 13 & 14
**• Assembly of the CD Changer Unit** ..... 14 & 15
**• Main Component Replacement Procedures**
1. Replacement of the Traverse Deck ..... 15
2. Replacement of the Power Amplifier IC and Regulator Transistors ..... 16

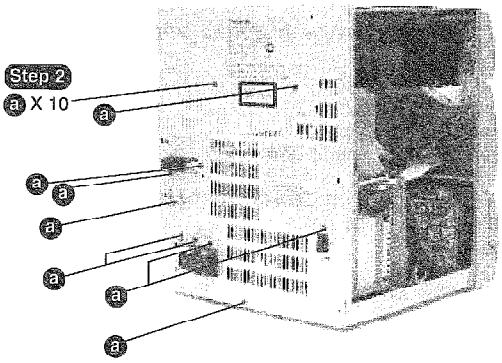

**Warning** : This product uses a laser diode. Refer to caution statement on page 3.
**ACHTUNG** : • Die lasereinheit nicht zerlegen.
• Die lasereinheit darf nur gegen eine vom hertsteller spezifizierte einheit ausgetauscht werden.

## ■ Checking Procedure for each major P.C.B.

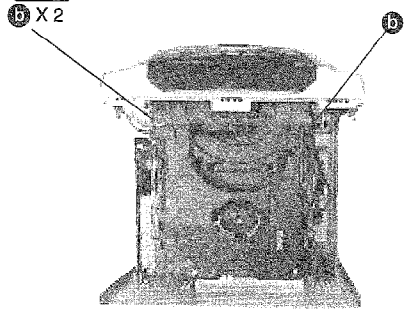
### 1. Checking of the Main, Panel, Deck, Tuner and Servo P.C.B.

| ⓐ | ⓑ |
|---|---|
| [XTBS3+8JFZ1] (Black) | [RHD30048] (Brass) |

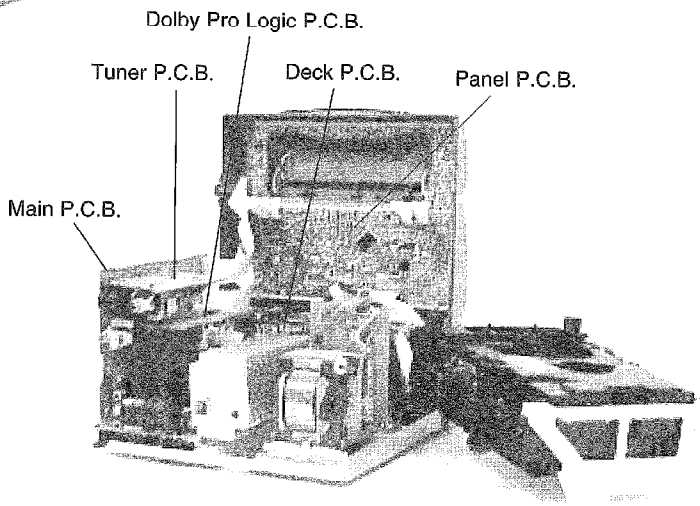
**Step 1** Remove the Top Cabinet.



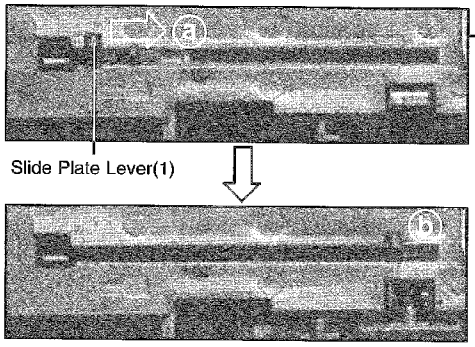

**Step 3**
ⓑ X 2

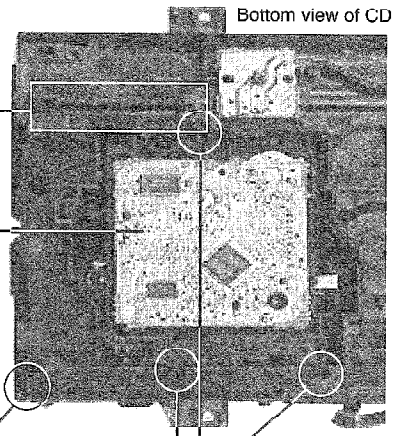



**Step 4**
Place the CD changer as shown on the right and check the Main P.C.B., Panel P.C.B. and Deck P.C.B.




### • Disassembly of the Traverse Unit




### • Contents

**Step 5**
Move the Slide Plate Lever(1) in the direction of arrow ⓐ to the position ⓑ and hold it, then lift up the stopper ⓒ until the Slide Plate Lever(2) eject out. Now the 3 slide plate will be open as shown in the figure 1 on the right and the traverse unit can be removed.

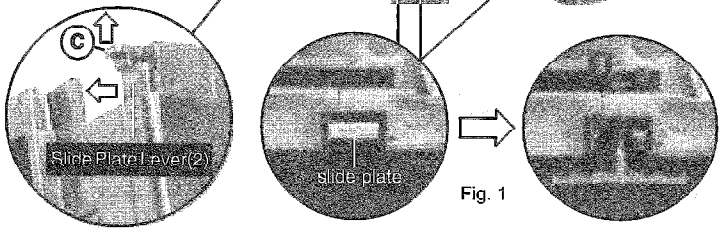
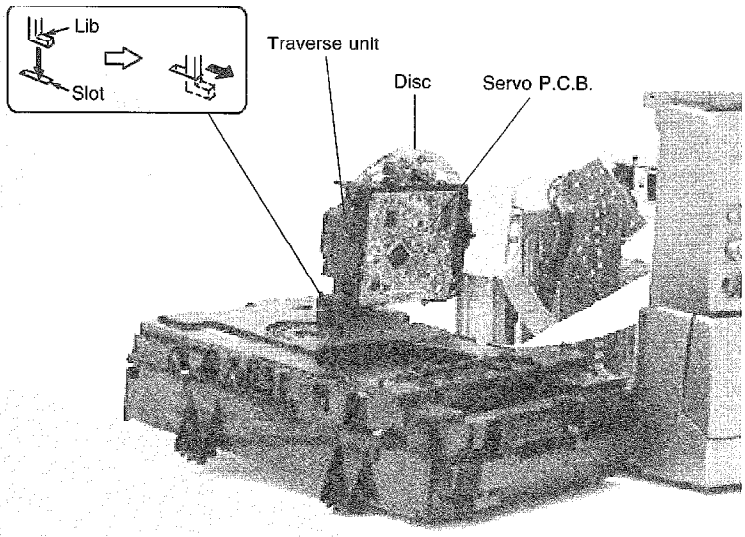



Fig. 1

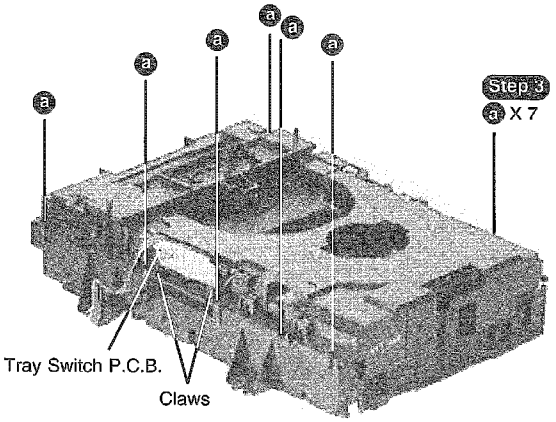
Step 6
Slide in the Traverse Unit into a slot on the top of the CD Changer Unit and then stand it.




Step 7
Attach the disc and clamper with magnet to the Traverse Unit as shown in the diagram on the left, then check the Servo P.C.B.
( Refer to page 11 of how to check the CD Unit without connecting to the CD Changer Loading Mechanism. )

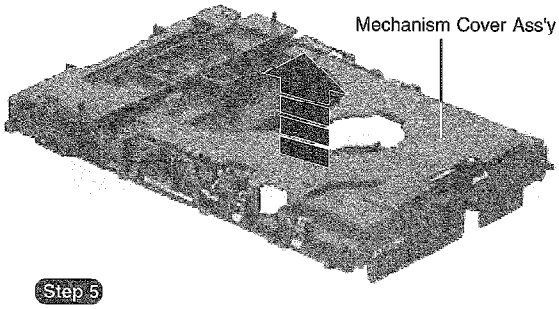
## Disassembly of the CD Changer Unit

Step 1 Follow the procedures in 'Checking Procedure For Each Major P.C.B.' (Step 1 ~ Step 4).

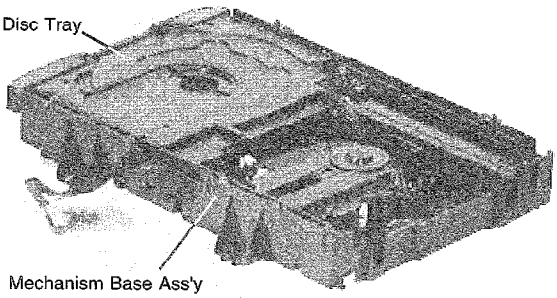



Step 2 Remove the Tray Switch P.C.B.

Step 4 Remove the Mechanism Cover Ass'y.

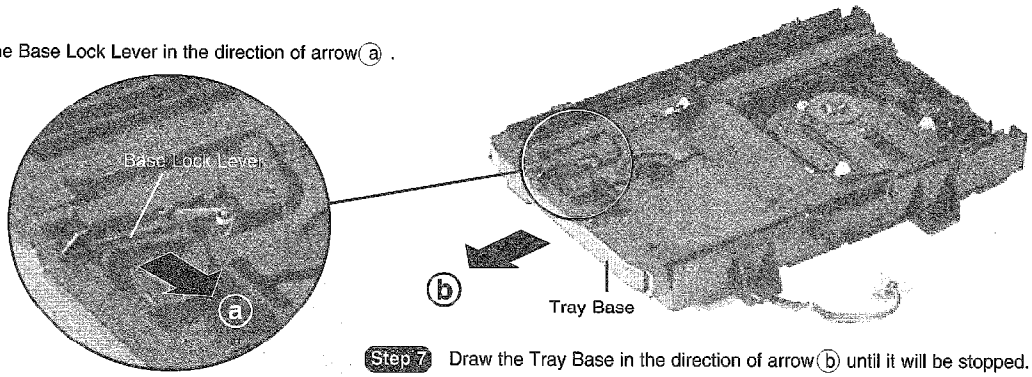



Step 5
Remove the Disc Tray sided on the Mechanism Base Ass'y.



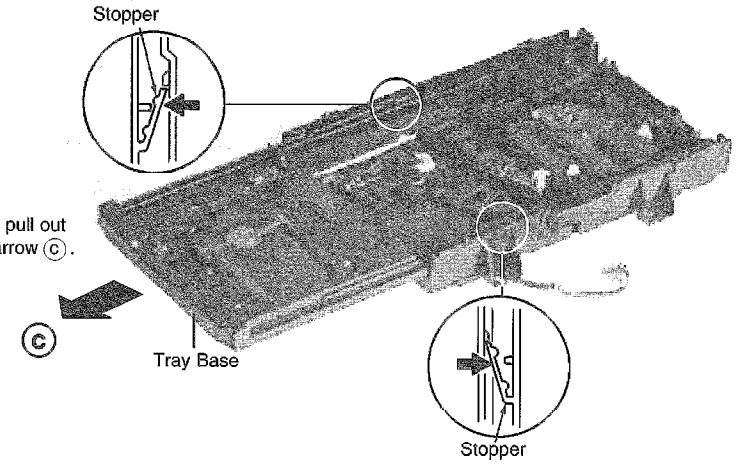
a
[XTB3+10JFZ]
(Black)

Step 6
Unlock the Base Lock Lever in the direction of arrow ⓐ .



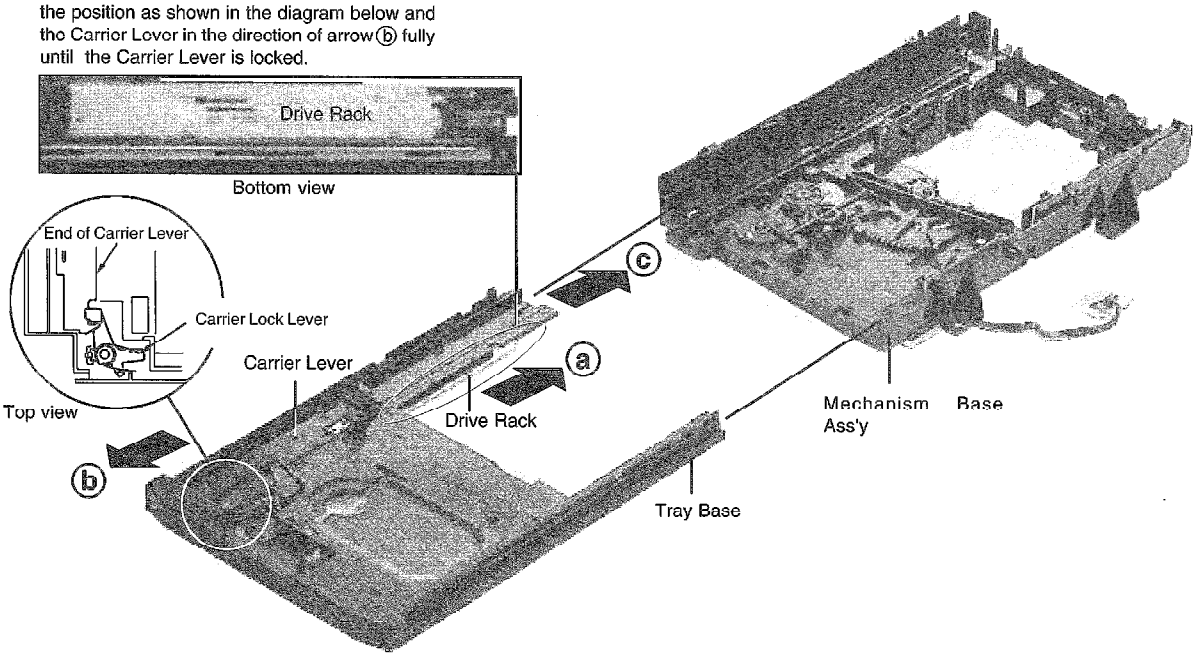

Step 7 Draw the Tray Base in the direction of arrow ⓑ until it will be stopped.

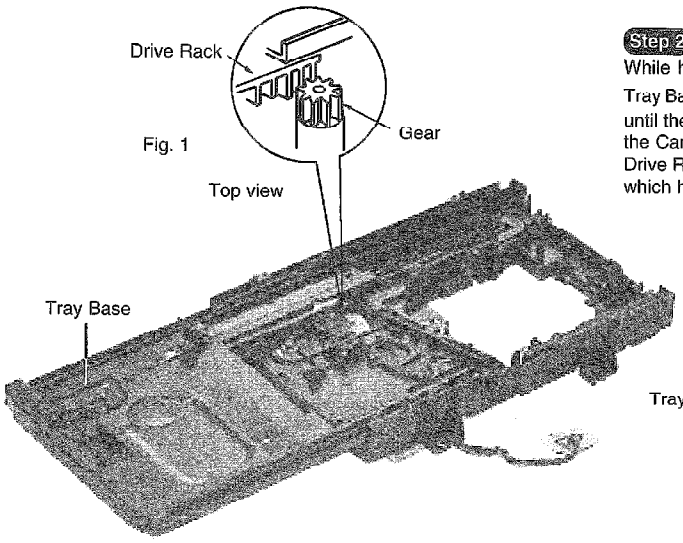
Step 8
Release 2 stoppers manually and pull out the Tray Base in the direction of arrow ⓒ.



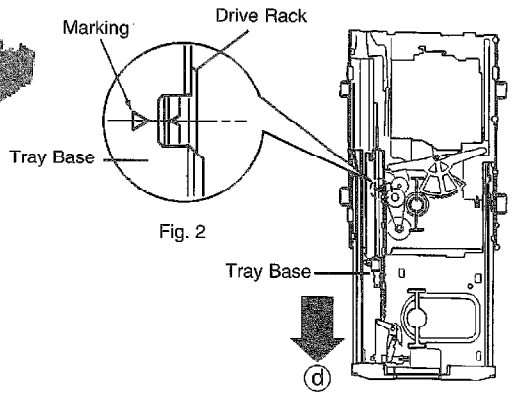

## ■ Assembly of the CD Changer Unit

Step 1
Move the Drive Rack in the direction of arrow ⓐ to the position as shown in the diagram below and the Carrier Lever in the direction of arrow ⓑ fully until the Carrier Lever is locked.






**Step 2**
While holding the Drive Rack and Carrier Lever, insert the Tray Base on the Mechanism Base in the direction of arrow ⓒ until the Tray Base stops as shown in figure 1. Release only the Carrier Lever and push the Tray Base together with the Drive Rack. After engaging the gear, release the Drive Rack which held and feed the Tray Base slowly.

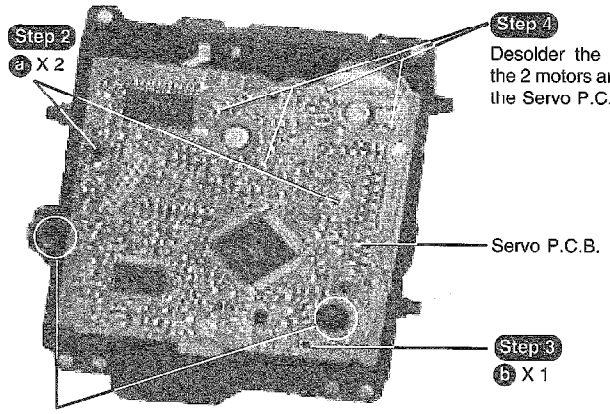



**Step 3**
Draw the Tray Base in the direction of arrow ⓓ to the end until it stops. Make sure the mark '▽' on the Tray Base is aligned with the mark '△'on the Drive Rack as shown in figure 2 before closing the Tray Base. (In case that the statement above is not operated, draw the Tray Base again from step 2)

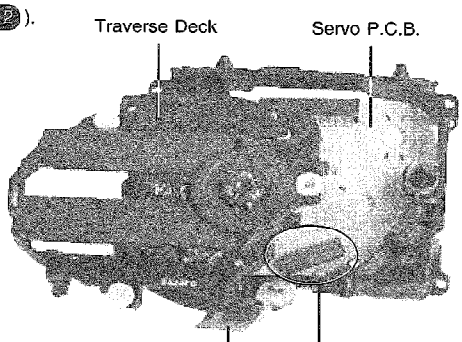
## ■ Main Component Replacement Procedures

### 1. Replacement of the Traverse Deck

**Step 1** Follow the procedures in 'Disassembly of the Traverse Unit' ( **Step 1** ~ **Step 2** ).

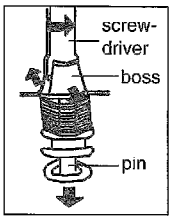



**Step 4** Desolder the 4 legs of the 2 motors and pull out the Servo P.C.B.



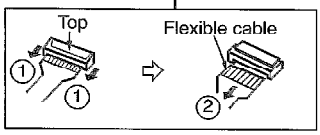

**Step 6** Remove the flexible cable CN701.

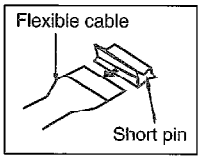
**Step 5** Widen the 2 bosses with a flat screwdriver and pull out the 2 pins. Then remove the Traverse Deck.




Note :
Insert a short pin into the flexible cable for traverse unit.

* Removal of the flexible cable
Push the top of the connector in the direction of the arrow ① , and then pull out the flexible cable in the direction of the arrow ② .



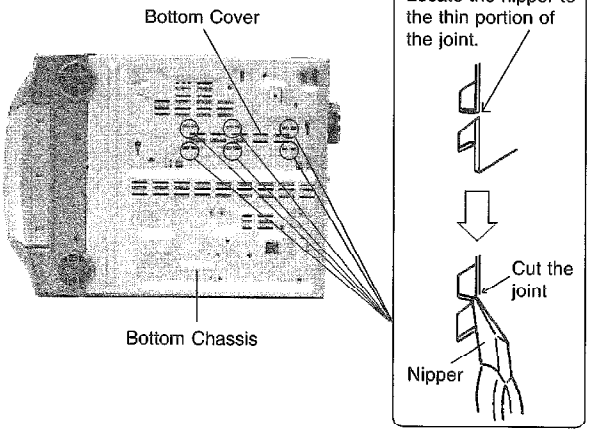




ⓐ [XTV2+6G] (Brass)

ⓑ [XTN2+6G] (Brass)

## 2. Replacement of the Power Amplifier IC and Regulator Transistor.

**Step 1** Follow the procedures in 'Checking of the Main, Panel, Deck and Servo P.C.B.' ( Step 1 ~ Step 3 ) and remove the CD changer unit.

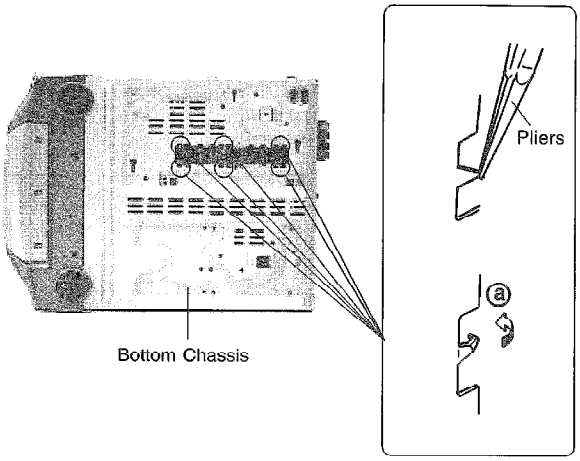


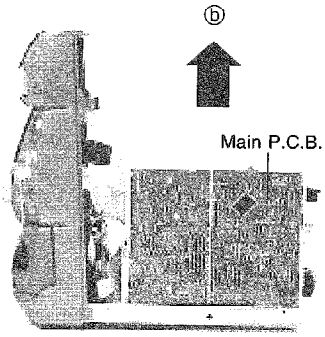

**Step 2**
Cut the joints (6 portions) between bottom cover and the bottom chassis ass'y with a nipper.

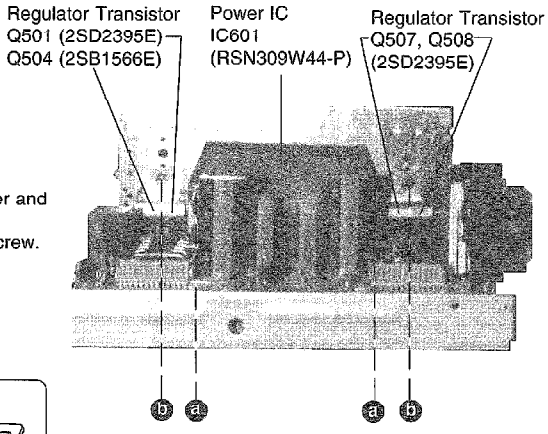
**Step 3**
After cutting the joints (6 portions), bend the portions of the bottom chassis ass'y in the direction of arrow ⓐ with pliers. (Step 2 must be performed to avoid injury by sharp edge.)

**Step 4**
Unsolder the terminals of Power IC or Regulator Transistors on the solder surface.

**Step 5**
Pull out the Main P.C.B. in the direction of arrow ⓑ .Remove 4 screws fixed to the Power IC and Transistor Holders, then remove Power IC, Transistor Holder and Regulator Transistor.

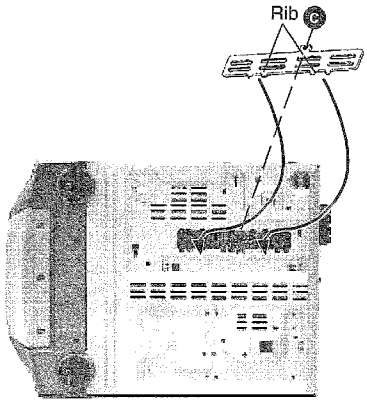


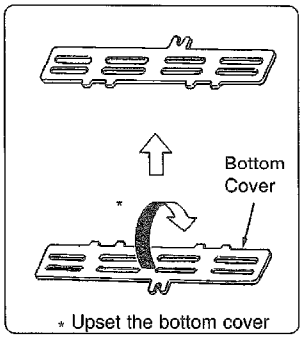




### Assembly of Bottom Cover

After replacing the Power IC or Regulator Transistor, upset the bottom cover and align the ribs of bottom cover to the lugs on the bottom chassis ass'y.
After mounting the bottom cover on the bottom chassis ass'y, fix it with a screw.




ⓐ [XTW3+15T]

ⓑ [XTB3+10JFZ]

ⓒ [XTB3+8J]

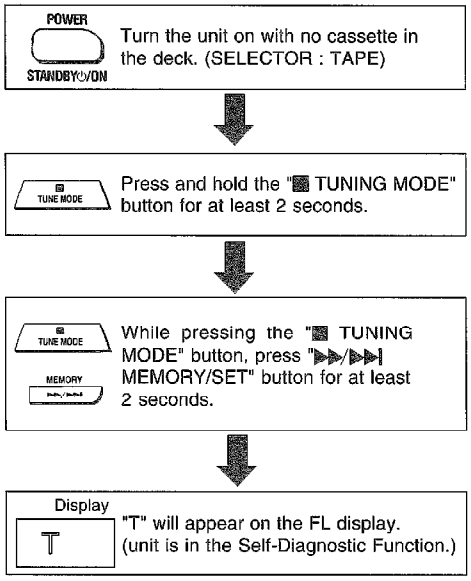
# Self-Diagnostic Display Function

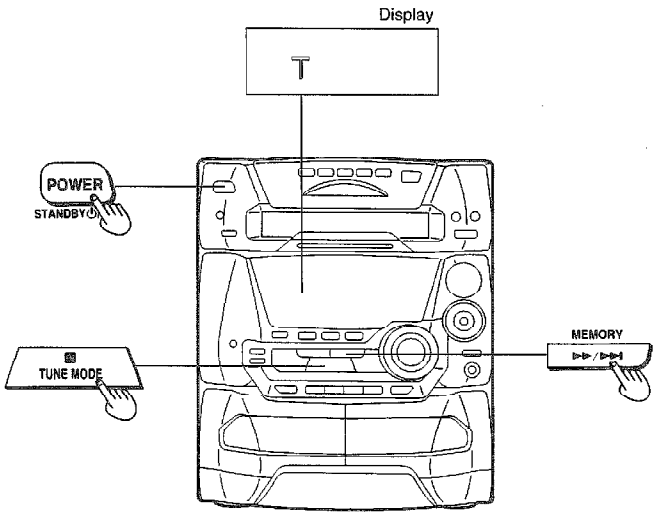
## Self-diagnostic display

This unit is equipped with a self-diagnostic display function which, if a problem occurs, will display an error code corresponding to the problem.

Use this function when performing maintenance on the unit.

## How to enter the Self-Diagnostic Function


POWER
STANDBY/ON
Turn the unit on with no cassette in the deck. (SELECTOR : TAPE)
TUNE MODE
Press and hold the "TUNING MODE" button for at least 2 seconds.
TUNE MODE
MEMORY
While pressing the "TUNING MODE" button, press "▶▶/▶▶| MEMORY/SET" button for at least 2 seconds.
Display
T
"T" will appear on the FL display. (unit is in the Self-Diagnostic Function.)




## Cassette Mechanism Test (For error code H01, H02, H03, F01, F02)

1. Press "TAPE, DECK 1/2" to select Deck 2.
2. Load a cassette tape with the erasure prevention tab, remove from left side only and close the cassette holder.
3. Press "▶▶/▶▶| MEMORY" (Tape will be stop after 2 seconds).
4. Load a cassette tape with the erasure prevention tab, remove from right side only and close the cassette holder.
5. Press "|◀◀/◀◀ FM MODE/BP" (Tape will be stop after 2 seconds).
6. Load a pre-recorded tape with both side record tabs intact and close the cassette holder.
7. Press "▶ TUNE/TIME ADJ^ " (After TPS function, tape will stop automatically).
8. Press "●REC/STOP" (Tape will not move).
9. Press "TUNING MODE" to indicate Error code.
   - If several problem exist, error code will change each time when "TUNING MODE" is pressed.
   (e.g. H01 H03 F01 ..... etc.)
10. Press "TAPE, DECK 1/2" to select Deck 1.
11. Repeat step 2 to 9 to test Deck 1. (Tape Deck 1 will not check H02 because of no recording function)

## CD Mechanism Test (F15, F16, F25 ~ F28, F75)

1. Press "CD".
2. Press "NEXT OPEN".
3. Press "TUNING MODE" to indicate Error Code.
   - If several problem exist, error code will change each time when "TUNING MODE" is pressed.
   (e.g. F15 F16 F25 ..... etc.)

## To clear all Error code

1. Press "TUNING MODE" button for 5 seconds.
2. FL indicator shows "CLEAR" for 1 second and change to "T".

## How to get out from Self-Diagnostic function

1. Press "POWER" button OFF.

## Power Amplifier Failure (F61)

1. When power amplifier fail, F61 will indicate automatically.

# ■ Description of Error Code

### (1) Error detection for Cassette Mechanism block

| No. | Error | Error Display | Problem condition |
|---|---|---|---|
| 1 | MODE SW detection error | H01 | Faulty operation of cassette mechanism.<br>Faulty contact or short-circuit of mechanism mode switch (S951, S971). |
| 2 | REC INH SW detection error | H02 | Recording not possible.<br>Faulty contact or short-circuit of REC INH switch (S974, S975). |
| 3 | HALF SW detection error | H03 | Playback can not perform.<br>Faulty contact or short-circuit of HALF switch (S952, S972). |
| 4 | Reel Pulse detection error | F01 | The tape advances slightly and then stops.<br>Faulty reel pulse, faulty hole detect IC (IC951, IC971). |
| 5 | TPS abnormal | F02 | Cassette deck will not perform TPS function.<br>Faulty playback EQ/recording amplifier IC (IC101). |

### (2) Error detection for CD/Changer block

| No. | Error | Error Display | Problem condition |
|---|---|---|---|
| 1 | REST SW detection error | F15 | CD does not function.<br>This error occurs when the Optical Pick Up REST SW (S701) is not detected within the specified time (about 8 seconds) |
| 2 | S3 (TUP) detection error | F16 | CD does not function.<br>This error occurs when S3 (Traverse up detection) is not ON or OFF within the specified time. |
| 3 | S4 (DRO) detection error | F25 | Tray does not stay open.<br>This error occurs when S4 (Tray open detection) is not ON or OFF during OPEN/CLOSE operation within the specified time. |
| 4 | Transmission error between CD servo LSI and micon | F26 | CD does not function.<br>This error occurs when the POWER is ON for the CD block and an error is detected after the transmission has started. |
| 5 | S5 (TNO) detection error | F27 | Tray number does not detect correctly.<br>This error occurs when S5 (Tray number detection) can not be detected normally or when the TRAY No. is uncertain. |
| 6 | S1 (STK), S2 (PLY) detection error | F28 | CD loading mechanism does not move correctly.<br>This error occurs when S1 (stocker position detection) is not ON or OFF, or S2 (play position detection) is not ON or OFF within the specified time. |
| 7 | CD power error | F75 | CD does not function.<br>Check if CDRST is H for SELECTOR at CD. If it is not H after 1 second, it shall be memorised as an error. (IC702) |

### (3) Power Supply related error detection

| No. | Error | Error Display | Problem condition |
|---|---|---|---|
| 1 | POWER AMP output abnormal | F61 | When POWER is switched on, power become off automatically.<br>During normal operation, if DC DET become L, PCNT shall become L and the error display on the left shall be displayed. (IC501) |

# CD Test Mode Function

This CD test mode is provided to check CD unit without connecting to changer loading mechanism. This mode shall operate CD PLAY with CD unit being connected only and CD Automatic Alignment result is shown on FL display.

## How to set CD test mode

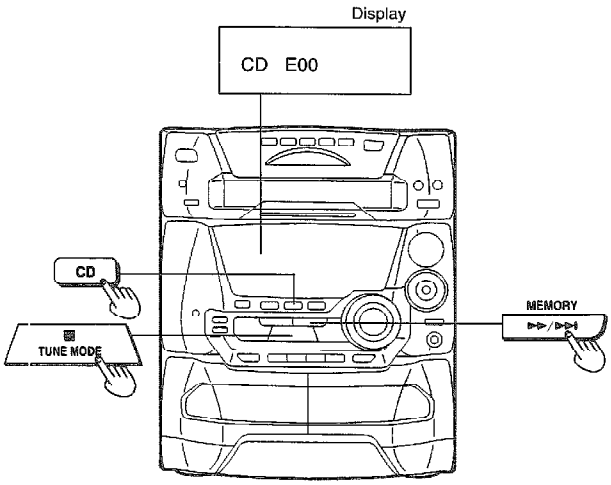
**Prepare and set up the CD unit**
checking condition (Refer to page 11)

CD Press CD

TUNE MODE Press and hold the "TUNING MODE" button at least 2 seconds.

TUNE MODE + MEMORY While pressing the "TUNING MODE" button, press "▶▶/▶▶MEMORY/SET" button for at least 2 seconds.

Display
CD E00
Automatic Alignment result appear on the FL display.




## CD Automatic Alignment result indication

This function provided indication of error code as the result of Automatic Alignment of CD (Tracking, Focus, Offset, etc.). Based on these error codes, the faulty area can be located .

## Error code Explanation

- The unit is satisfactory if the error code is E00
- Before testing, make sure that the test disc is free of scratches, dirt and that the optical pick up lens is clean.

| Error code | E00 | E01 | E02 | E03 | E04 | E05 | E06 | E07 | E08 | E09 | E0A | E0B | E0C | E0D | E0E | E0F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Focus offset | O | ※ | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Tracking offset | O | ※ | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Focus Gain (Rough) | O | ※ | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Tracking Gain(Rough) | O | – | O | X | O | X | O | X | O | X | O | X | O | X | O | X |
| Tracking balance | O | – | X | X | O | O | X | X | O | O | X | X | O | O | X | X |
| Focus balance | O | – | O | O | X | X | X | X | O | O | O | O | X | X | X | X |
| Tracking or Focus Gain (Fine) | O | – | O | O | O | O | O | O | X | X | X | X | X | X | X | X |

O Satisfy X Fault (※ Fault either items)

# ■ Measurements and Adjustments
# < CASSETTE DECK SECTION >

- Measurement Condition
  - Reverse-mode selector switch :⇄
  - Tape edit : NORMAL
  - Record timer : OFF
  - Dolby NR : OFF
  - Make sure head, capstan and pressure roller are clean.
  - Judgeable room temperature 20 ± 5 °C (68 ± 9 °F)
- Measuring instrument
  - EVM (Electronic Voltmeter)
  - Digital frequency counter
- Test tape
  - Head azimuth adjustment (8 kHz, –20 dB); QZZCFM
  - Tape speed adjustment (3 kHz, –10 dB); QZZCWAT
  - Playback gain adjustment (315 Hz, 0 dB); QZZCFM
  - Normal reference blank tape; QZZCRA
  - $CrO_2$ tape; QZZCRX

## • Head Azimuth Adjustment (Deck 1/2)

**Caution :**

- Please replace both azimuth adjustment screws (RHE5152ZB) and springs (RMB0331) simultaneously when readjusting the head azimuth. (shown in Fig. 2)
  Even if you wish to readjust the head azimuth without replacing the screws and springs, a fine adjustment cannot be done because of the screw-locking bond adhered to the azimuth screw and spring.
- Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
- If you wish to readjust the head azimuth, be sure to adjust with adhering the cassette tape closely to the mechanism by pushing the center of cassette tape with your finger. (shown in Fig. 3)

1. Playback the azimuth adjustment portion (8 kHz, –20 dB) of the test tape (QZZCFM) in the forward play mode. Vary the azimuth adjusting screw until the output of the R-CH (PB OUT-R) are maximized.
2. Perform the same adjustment in the reverse play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

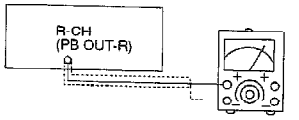


Fig. 1

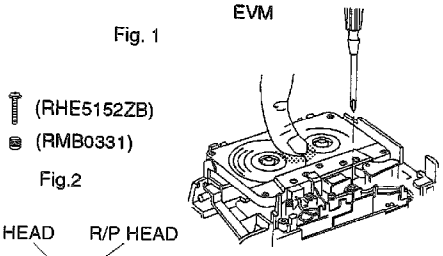


Fig.2

Fig. 3

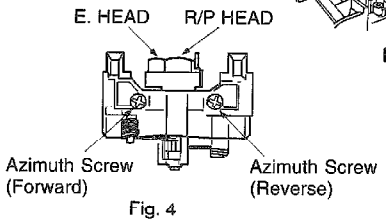
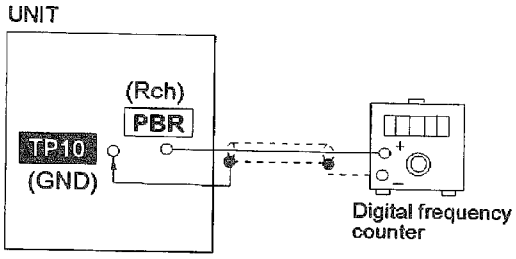


Fig. 4

## • Tape Speed Adjustment (Deck 1/2)

1. Set the tape edit button to "NORMAL" position.
2. Insert the test tape (QZZCWAT) to DECK 2 and playback (FWD side) the middle portion of it.
3. Adjust Motor VR (DECK 2) for the output value shown below.

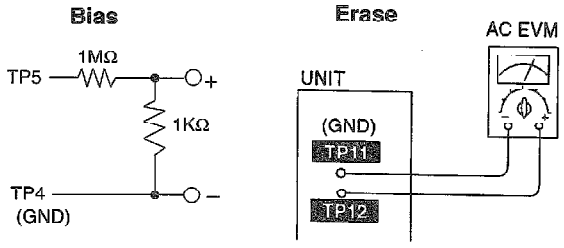
   **Adjustment target : 2940 ~ 3060 Hz (NORMAL speed)**
4. After alignment, assure that the output frequency of the DECK 2 REV and DECK 1 FWD are within **±45 Hz** and **± 60 Hz** respectively of the value of the output frequency of DECK 2 FWD.




## • Bias and Erase Voltage Check

1. Set the unit to "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and set the unit to "REC" mode (use "●REC / STOP" key).
3. Measure and make sure that the output is within the standard value.
4. Insert the $CrO_2$ tape (QZZCRX).
5. Repeat steps 2 and 3.

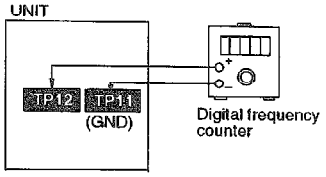
| | |
|---|---|
| **Bias voltage for Deck 2 (Standard value) :** | **19 ± 4mV (Normal)** |
| | **27 ± 5mV ($CrO_2$)** |
| **Erase voltage for Deck 2 (Standard value) :** | **more than 100mV (Normal)** |
| | **more than 150mV ($CrO_2$)** |



### • Bias Frequency Adjustment (Deck 2)

1. Set the unit to "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and set the unit to "REC" mode (use "●REC / STOP" key).
3. Adjust L201 so that the output frequency is within the standard value.

**Standard Value : 98 ± 8 kHz**




## < TUNER SECTION >

### ■ AM-IF ALIGNMENT

| SIGNAL GENERATOR or SWEEP GENERATOR | | RADIO DIAL SETTING | INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE) | ADJUSTMENT (Shown in **Fig. 3**) | REMARKS |
|---|---|---|---|---|---|
| CONNECTIONS | FREQUENCY | | | | |
| Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver. | 450kHz 30 % Mod. at 400Hz | Point of non-interference.(on/ about 600kHz | Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.) | Z102 (AM IFT) | Adjust for maximum output. |

### ■ AM-RF ALIGNMENT

| | | | | | |
|---|---|---|---|---|---|
| " | 522 kHz | Tuning capacitor fully closed | " | Z101 (AM OSC Coil) | Adjust for maximum output. |
| " | 603 kHz | Tuning to signal | " | Z101 (AM ANT Coil) | Adjust for maximum output. |

### • Alignment Points

<Cassette Deck Section>

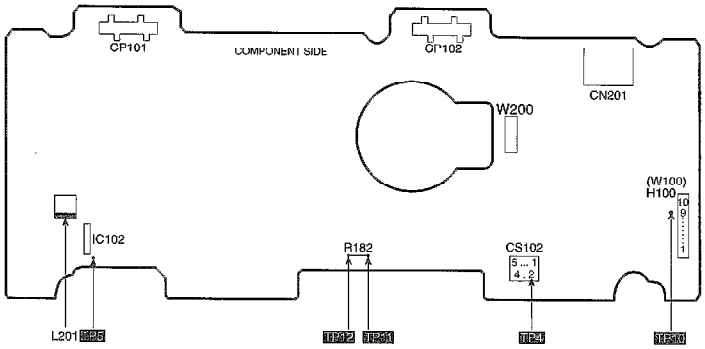



Fig. 1

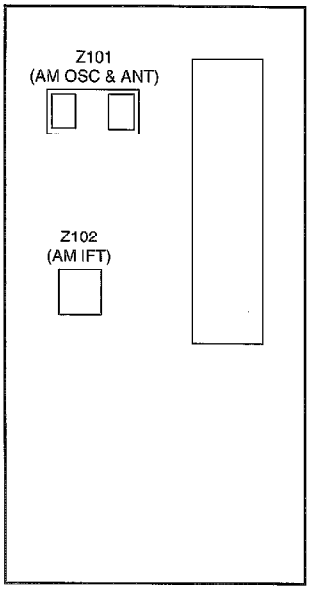



Fig. 3

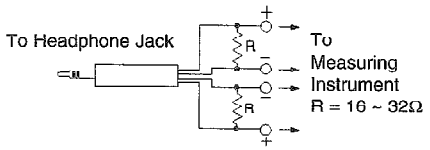
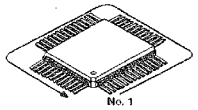


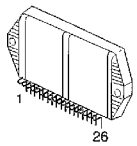

Fig. 2

# Terminal Guide of IC's, Transistors and Diodes

M38198MCA809(100P)
MN662746RPK1(80P)
M62433AFP(80P)

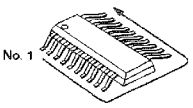



RSN309W44-P

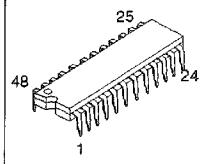



BA3835F-E2(18P)
AN8780SBE2 (28P)
BU2040F-E2 (16P)
BU2090F-E2 (16P)
M5228FPE1 (14P)
M51167BFP-TB (36P)

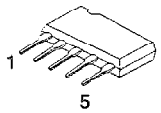
BU4066BCF-E2 (14P)
CXA1102M-T4 (16P)
LA1833MN-TLM (24P)
LC72131MDTRM (20P)
M62425FPE1



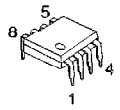

LV1030N



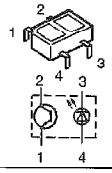

BA7755A



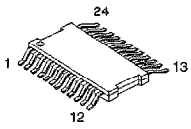

M5218AP



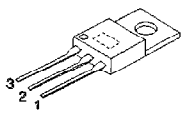

0N2180RLC



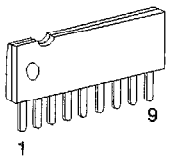

AN8837SBE1



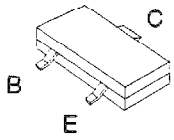

BA178M05T



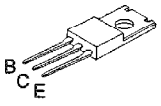

BA6418N



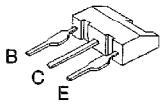

2SA1037AKSTX
DTC114YKA146



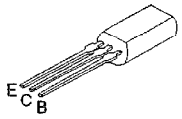

2SD2395E
2SB1566E



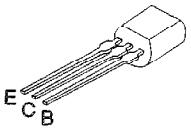

2SB1238QRTV2
2SD1859QRTV2




2SC3940AQSTA

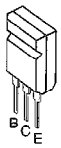



2SB621ARSTA
2SC2001KTA
2SB621RTA
2SD1302STA
2SD965RTA
KSD471ACYGTA




2SC2784FTA

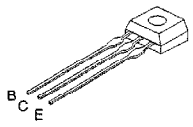
2SD2137PQTA



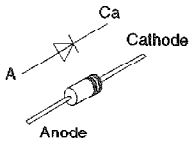

2SJ164QRTA
BA1A4MTA
RVTDTA114TST
RVTDTA114EST
RVTDTC114TST
RVTDTC124EST

2SA933SSTA
2SC1740SLNET
2SC1740SSTA
2SC2785FTA
2SC2787LTA
2SD1020HTA

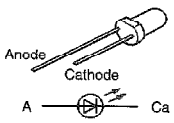
2SD1450STA
BA1A4ZTA
BA1L4ZTA
BA1L4MTA
BN1A4MTA
BN1L3NTA



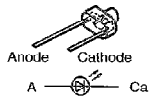

RK306LFU1



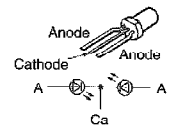

SLR325DCT31



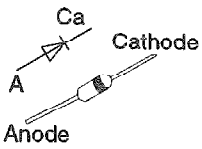

LNJ301MPUJAD




SML79455C

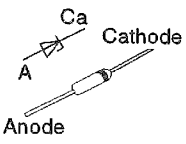



RVD1SS133TA
1SS291TA
MA165TA
MA700TA

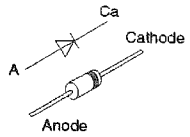



MTZJ11CTA
MTZJ3R6BTA
MTZJ4R7BTA
MTZJ5R1BTA
MTZJ16ATA
MTZJ30DTA
MTZJ24DTA

MTZJ12CTA
MTZJ5R1CTA
MTZJ5R6BTA
MTZJ6R8ATA
MTZJ8R2BTA
MTZJ9R1CTA
MA4020LTA




1D3E
1N5402BM21




Blank

# ■ Terminal Function of IC's

## • IC701 (AN8837SBE1) Servo Amplifier

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 1 | PDE | I | Tracking signal input terminal 1 (E ch) |
| 2 | PDF | I | Tracking signal input terminal 2 (F ch) |
| 3 | VCC | I | Power supply connection |
| 4 | PDA | I | Focus signal input terminal 1 (A ch) |
| 5 | PDB | I | Focus signal input terminal 2 (B ch) |
| 6 | LPD | I | Laser PD connection |
| 7 | LD | O | Laser power auto control output |
| 8 | RF | O | RF signal output |
| 9 | RFIN | I | RF signal input |
| 10 | CSBRT | I | Capacitor for detection connection |
| 11 | CEA | I | Capacitor connection for HPF amplifier |
| 12 | BDO | O | BDO output ("H" : drop out) |
| 13 | LDON | I | LD APC input ("H" : ON, "L" : OFF) |
| 14 | GND | — | Ground connection |

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 15 | /RFDET | O | NRFDET output ("L" : detection) |
| 16 | CROSS | O | CROSS output (Track cross signal output) |
| 17 | OFTR | O | Off-track output("L" : ON track, "H" : OFF track) |
| 18 | VDET | O | VDET output("H" : Vibration detected) |
| 19 | ENV | O | RF envelope detection |
| 20 | ENVOFF | I | Not used, connected to power supply |
| 21 | TEBPF | I | Oscillation detect signal input |
| 22 | TEN | I | Tracking error signal input |
| 23 | TEOUT | O | Tracking error signal output |
| 24 | FEOUT | O | Focus error signal output |
| 25 | FEN | I | Focus error signal input |
| 26 | VREF | O | Reference voltage output |
| 27 | TBAL | I | Tracking balance signal input |
| 28 | FBAL | I | Focus balance signal input |

## • IC703 (AN8780SBE2) Focus coil / Tracking coil / Traverse motor / Spindle motor driver

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 1 | /RST | — | Not used, open |
| 2 | NC | — | Not used |
| 3 | IN2 | I | Motor driver (2) input |
| 4 | PC2 | I | Turntable motor drive signal ("L" : ON) |
| 5 | NC | — | Not used |
| 6 | IN1 | I | Motor driver (1) input |
| 7 | PVCC1 | I | Power supply (1) for driver |
| 8 | PGND1 | — | Ground connection (1) for driver |
| 9 | NC | — | Not used, connected to GND |
| 10 | D1- | O | Motor driver (1) reverse-action output |
| 11 | D1+ | O | Motor driver (1) forward-action output |
| 12 | D2- | O | Motor driver (2) reverse-action output |
| 13 | D2+ | O | Motor driver (2) forward-action output |

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 14 | D3– | O | Motor driver (3) reverse-action output |
| 15 | D3+ | O | Motor driver (3) forward-action output |
| 16 | D4– | O | Motor driver (4) reverse-action output |
| 17 | D4+ | O | Motor driver (4) forward-action output |
| 18 | NC | — | Not used, open |
| 19 | PGND2P | — | Ground connection (2) for driver |
| 20 | PVCC2 | I | Power supply (2) for driver |
| 21 | VCC | I | Power supply terminal |
| 22 | VREF | I | Reference voltage input |
| 23 | IN4 | I | Motor driver (4) input |
| 24 | IN3 | I | Motor driver (3) input |
| 25 | RSTIN | I | Reset terminal (Not used, connected to GND) |
| 26 | NC | — | Not used, connected to GND |

## • IC702 (MN662746RPK1) Servo processor / Digital signal processor / Digital filter / D/A converter

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 1 | BCLK | O | Serial bit clock terminal (Not used, open) |
| 2 | LRCK | O | L/R discriminating signal (Not used, open) |
| 3 | SRDATA | O | Serial data (Not used, open) |
| 4 | DVDD1 | I | Power supply (digital circuit) terminal |
| 5 | DVSS1 | — | GND (digital circuit) terminal |
| 6 | TX | O | Digital audio interface signal |
| 7 | MCLK | I | Microprocessor command clock signal |
| 8 | MDATA | I | Microprocessor command data signal |
| 9 | MLD | I | Microprocessor command load signal |
| 10 | SENSE | O | Sense signal output |
| | | | (OFT,FESL,MAGEND,NAJEND,POSAD,SFG) |
| 11 | /FLOCK | O | Optical servo condition(focus)("L" : lead-in) |
| 12 | /TLOCK | O | Optical servo condition(tracking)("L" : lead-in) |
| 13 | BLKCK | O | Sub-code block clock (f=75Hz) |
| 14 | SQCK | I | External clock signal input for sub-code Q |
| | | | register. |
| 15 | SUBQ | O | Sub-code Q code output |
| 16 | DMUTE | I | Muting input ("H" : mute) |
| 17 | STAT | O | Status signal output |
| | | | (CRC,CUE,CLVS,TTSTVP,FCLV,SQCK) |
| 18 | /RST | I | Reset input |
| 19 | SMCK | O | 1/2-divided clock signal of crystal oscillating at |
| | | | MSEL = "H" (fSMCK=8.4672MHz) |
| | | | 1/4-divided clock signal of crystal oscillating at |
| | | | MSEL="L" (fSMCK=4.2336MHz) |
| 20 | PMCK | O | 1/192-divided clock signal of crystal oscillating |
| | | | (fPMCK=88.2kHz) (Not used, open) |
| 21 | TRV | O | Traverse servo control output |
| 22 | TVD | O | Traverse drive signal output |
| 23 | PC | O | Spindle motor ON signal output ("L" : ON) |
| 24 | ECM | O | Spindle motor drive signal output |
| | | | (forced mode output) |
| 25 | ECS | O | Spindle motor drive signal output |
| | | | (servo error signal output) |
| 26 | KICK | O | Kick pulse output |
| 27 | TRD | O | Tracking drive output |
| 28 | FOD | O | Focus drive output |
| 29 | VREF | I | D/A (drive) output (TVD,ECS,TRD,FOD, |
| | | | FBAL,TBAL) Reference voltage input. |
| 30 | FBAL | O | Focus balance adjustment output |
| | | | (Not used,open) |
| 31 | TBAL | O | Tracking balance adjustment output |
| 32 | FE | I | Focus error signal input (analog input) |
| 33 | TE | I | Tracking error signal input (analog input) |
| 34 | RFENV | I | RF envelope signal input |
| 35 | VDET | I | Vibration detection signal input ("H" : detection) |

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 36 | OFT | I | Off-track signal input ("H" : off track) |
| 37 | TRCRS | I | Track cross signal input |
| 38 | /RFDET | I | RF detection signal input ("L" : detection) |
| 39 | BDO | I | Dropout signal input ("H" : Dropout) |
| 40 | LDON | O | Laser on signal output ("H" : ON) |
| 41 | TES | O | Tracking error shunt signal output ("H" : shunt) |
| 42 | PLAY | O | Play signal out ("H" : PLAY) |
| 43 | WVEL | O | Double speed status signal output ("H" : DS) |
| 44 | ARF | I | RF signal input |
| 45 | IREF | I | Reference current input |
| 46 | DRF | I | DSL bias (Not used, open) |
| 47 | DSLF | I/O | DSL loop filter |
| 48 | PLLF | I/O | PLL loop filter |
| 49 | DSLF | I/O | VCO loop filter (Not used, open) |
| 50 | AVDD2 | I | Power supply input (for analog circuit) |
| 51 | AVSS2 | — | GND (for analog circuit) |
| 52 | EFM | O | EFM signal output (Not used, open) |
| 53 | PCK | O | PLL extraction clock ouput (Not used, open) |
| | | | (fPCK=4.321 MHz during normal playback) |
| 54 | TOUT | O | Phase comparison signal of EFM and PCK signals |
| | | | (Not used, open) |
| 55 | SUBC | O | Sub-code serial data output (Not used, open) |
| 56 | SBCK | I | Sub-code frame clock signal output |
| | | | (fCLDCK=7.35kHz during normal playback) |
| 57 | VSS | — | GND |
| 58 | X1 IN | I | Crystal oscillating circuit input (f=16.9344MHz) |
| 59 | X2 OUT | O | Crystal oscillating circuit output (f=16.9344MHz) |
| 60 | VDD | I | Power supply input (for oscillating circuit) |
| 61 | BYTCK | O | Byte clock output (Not used, open) |
| 62 | /CLDCK | O | Clock input for sub-code serial data |
| | | | (Not used, open) |
| 63 | FCLK | O | Crystal frame clock signal output |
| | | | (fCLK=7.35kHz, double=14.7kHz) |
| 64 | PFLAG | O | Interpolation flag output ("H" : interpolation) |
| | | | (Not used, open) |
| 65 | FLAG | O | Flag output (Not used, open) |
| 66 | CLVS | O | Spindle servo phase synchronizing signal output |
| | | | ("H" : CLV, "L" : rough servo) (Not used, open) |
| 67 | CRC | O | Sub-code CRC checked output |
| | | | ("H" : OK, "L" : NG) (Not used, open) |
| 68 | RESY | O | Frame resynchronizing signal output |
| | | | (Not used, open) |
| 69 | FLAG | O | De-emphasis ON signal output |
| | | | ("H" : ON) (Not used, open) |
| 70 | ARST | I | Reset input through MASH circuit ("L" : Reset) |
| 71 | /TEST | I | Test input |

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 72 | AVDD1 | I | Power supply input (for analog circuit) |
| 73 | OUTL | O | Left channel audio signal output |
| 74 | AVSS1 | — | GND |
| 75 | OUTR | O | Right channel audio signal output |
| 76 | RSEL | I | RF signal polarity assignment input |
| | | | (at "H" level, RSEL="H", at "L" level, RESL="L") |
| 77 | CSEL | I | Crystal oscillating frequency designation input |

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| | | | "L" : 16.9344MHz "H" : 33.8688MHz |
| 78 | PSEL | I | Test input (normally "L") (Not used, open) |
| 79 | MSEL | I | Output mode switching of SUBQ terminal |
| | | | ("H" : Q code buffer mode) |
| 80 | SSEL | I | Output frequency switching for SMCK terminal |
| | | | "H" : SMCK=8.4672MHz |
| | | | "L" : MCK=4.2336MHz (Not used, open) |

## • IC901 (M38198MCA809) System Microprocessor

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 1 | CRT | I/O | CRT timer |
| 2 | TPS IN | I | TPS signal input |
| 3 | DECK1 | I | Deck 1 mechanism condition input |
| 4 | DECK 2 | I | Deck 2 mechanism condition input |
| 5 | KEY 4 | I | Key 4 input |
| 6 | KEY 3 | I | Key 3 input |
| 7 | KEY 2 | I | Key 2 input |
| 8 | KEY 1 | I | Key 1 input |
| 9 | SER 1 | O | Serial clock output for IC903 and IC904 |
| 10 | ECHO DT | O | Echo level control signal output |
| | | | (Not used, open) |
| 11 | SER 2 | O | Serial data/clock output for IC301 and IC903 |
| 12 | SER 3 | O | Serial data output for IC301 and IC904 |
| 13 | SER 4 | O | Serial clock output (Not used, open) |
| 14 | SER 5 | O | Latch signal output for digital sound controller |
| | | | (IC301) |
| 15 | SPEANA | I | Spectrum analyser input |
| | | | INPUT |
| 16 | CHG SW1 | I | CD changer SW input (STK_SW, TUP_SW) |
| 17 | CHG SW2 | I | CD changer SW input |
| | | | (DR0_SW, PLY_SW, TN0_SW) |
| 18 | CDRST | O | Reset signal output for CD circuit |
| 19 | STATUS | I | Reset signal input for CD circuit |
| 20 | SQCK | O | CD subcode clock output |
| 21 | NC | — | Not used, connected to GND |
| 22 | SUBQ | I | CD subcode data input |
| 23 | JOGA | I | Volume control signal input |
| 24 | JOGB | I | Volume control signal input |
| 25 | MDATA | O | CD command data output and |
| | /PLLDATA | | tuner PLL data output |
| 26 | MLD/ | O | CD command load output and |
| | PLLCE | | tuner chip enable output |
| 27 | ECHO | O | Echo ON/OFF control signal output (Not used) |
| 28 | MCLK/ | O | CD command clock output and |
| | PLLCLK | | tuner PLL clock output |
| 29 | RESTSW | I | CD REST detect SW input |

| Pin No. | Mark | I/O | Function |
|---|---|---|---|
| 30 | BLKCK | I | CD block clock input |
| 31 | RMT | I | Remote control signal input |
| 32 | SD IN | I | Station detector signal input for tuner circuit |
| 33 | P.CON I | O | Power control output |
| 34 | SYNC | I | AC power source detect signal input |
| 35 | /RESET | I | RESET input |
| 36 | XCIN | I | X'tal oscillator (f = 32.768 kHz sub clock) |
| 37 | XCOUT | O | X'tal oscillator (f = 32.768 kHz sub clock) |
| 38 | XIN | I | X'tal oscillator (f = 6.0 MHz Main clock) |
| 39 | XOUT | O | X'tal oscillator (f = 6.0 MHz Main clock) |
| 40 | VSS | — | Ground (0V) |
| 41 | MBP1 | O | MPU beat proof output 1 |
| 42 | MBP2 | O | MPU beat proof output 2 |
| 43 | J JOGA | I | AI Equalizer control signal input |
| 44 | J JOGB | I | AI Equalizer control signal input |
| 45 | MKCLK | O | Deck control clock output |
| 46 | SPE CONT A | O | Space control A |
| 47 | SPE CONT B | O | Space control B |
| 48 | SPE CONT C | O | Space control C |
| 49-54 | GRD8-GRD13 | O | LCD grid signal output |
| 55-61 | GRD1-GRD7 | O | LCD grid signal output |
| 62-90 | REG32-REG4 | O | LCD segment signal output |
| 91 | VCC | I | Power supply (+5V) |
| 92-94 | REG3-REG1 | O | LCD segment signal output |
| 95 | REGION IN | I | Region select signal input |
| 96 | STEREO IN | I | Tuner stereo DET input |
| 97 | DO IN | I | Tuner PLL IF data input |
| 98 | VP | — | Power supply (-30V) |
| 99 | VSS | — | Ground (0V) |
| 100 | VREF | I | Reference voltage input |

# ■ Schematic Diagram

**(All schematic diagrams may be modified at any time with the development of new technology)**
**Note :**

- **S501** : Voltage selector

**< for Servo Circuit >**

- **S701** : Reset switch

**< for Panel circuit, Led Circuit and Operation Circuit >**

- **S901** : Tuner select switch
- **S902** : Reverse play/pause, Tune/time adjust down switch
- **S903** : CD select switch
- **S904** : FWD play, tune/time adjust up switch
- **S905** : Tape/deck select switch
- **S906** : Display, demonstration select switch
- **S908** : Stop, tune mode select switch
- **S909** : AUX select switch
- **S910** : Dolby Prologic
- **S912** : FWD, memory/set switch
- **S913** : Clock, timer select switch
- **S914** : REW, FM mode/BP select switch
- **S915** : Play timer/REC timer select switch
- **S916** : Disc tray open/close switch
- **S917** : Deck 1 open switch
- **S918** : CD manager switch
- **S919** : Disc next open switch
- **S920** : Tape Edit switch
- **S921** : DISC 5 select switch
- **S922** : Random play switch
- **S923** : Record select switch
- **S924** : DISC 4 select switch
- **S925** : Super woofer switch
- **S926** : Dolby NR select switch
- **S927** : DISC 3 select switch
- **S928** : Reverse mode select switch
- **S929** : DISC 2 select switch
- **S930** : Deck 2 open switch
- **S931** : DISC 1 select switch
- **S932** : Power switch
- **S933** : C.Mode
- **VR901** : Volume control
- **VR902** : Sound EQ select switch
- **VR903** : MIC volume control

**< for Deck circuit, Mechanism (Deck 1) circuit and Mechanism (Deck 2) circuit >**

- **S951** : Deck 1 Mode detect switch.
- **S952** : Deck 1 Tape detect switch.
- **S953** : Deck 1 $CrO_2$ detect switch.
- **S971** : Deck 2 Mode detect switch.
- **S972** : Deck 2 Tape detect switch.
- **S973** : Deck 2 $CrO_2$ detect switch.
- **S974** : Deck 2 Record detect switch.
- **S975** : Deck 2 Record detect switch.
- **VR101** : Deck 1 Lch playback gain adjustment VR(DOLBY)
- **VR102** : Deck 1 Rch playback gain adjustment VR(DOLBY)
- **VR103** : Deck 2 Lch playback gain adjustment VR(DOLBY)
- **VR104** : Deck 2 Rch playback gain adjustment VR(DOLBY)

**< for Loading Motor circuit, Detecting Switch (1) Circuit and Detecting Switch (2) Circuit >**

- **S1, S4** : Leaf switch.
- **S2, S3, S5** : Mecha switch.

**•Signal line**

: +B line
: –B line
: FM/AM signal line
: Main signal line
: Playback signal line
: Record signal line
: CD signal line
: FM signal line
: AM signal line
: AM OSC signal line
: FM OSC signal line
: AUX signal line

•The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

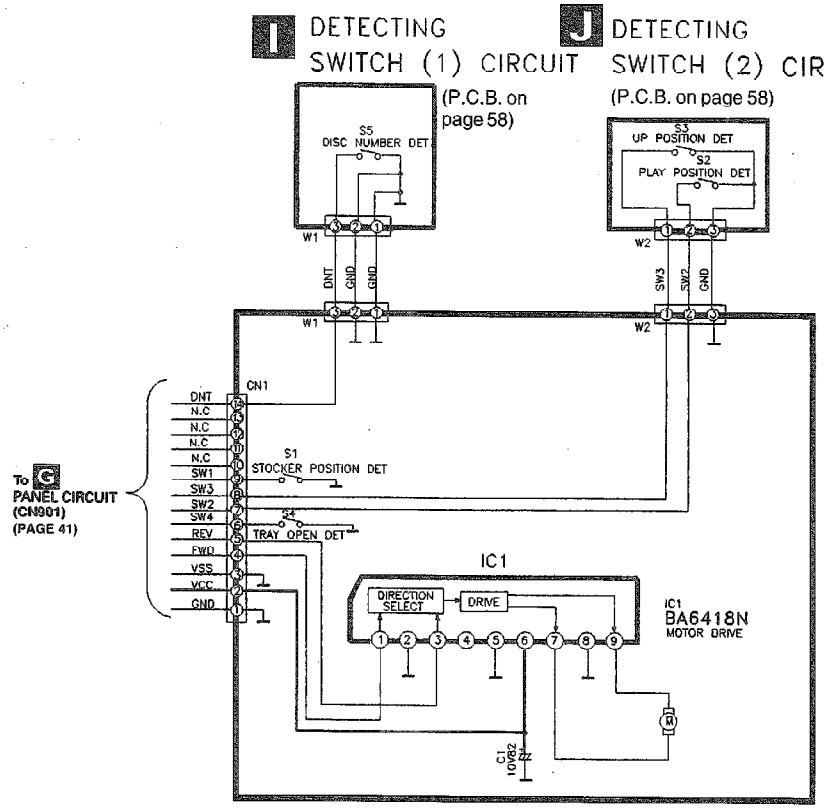
No mark : Playback  << >> .....Rec  [ ] : AUX  (( )) : CD  < > ..... FM  ( ) .... AM

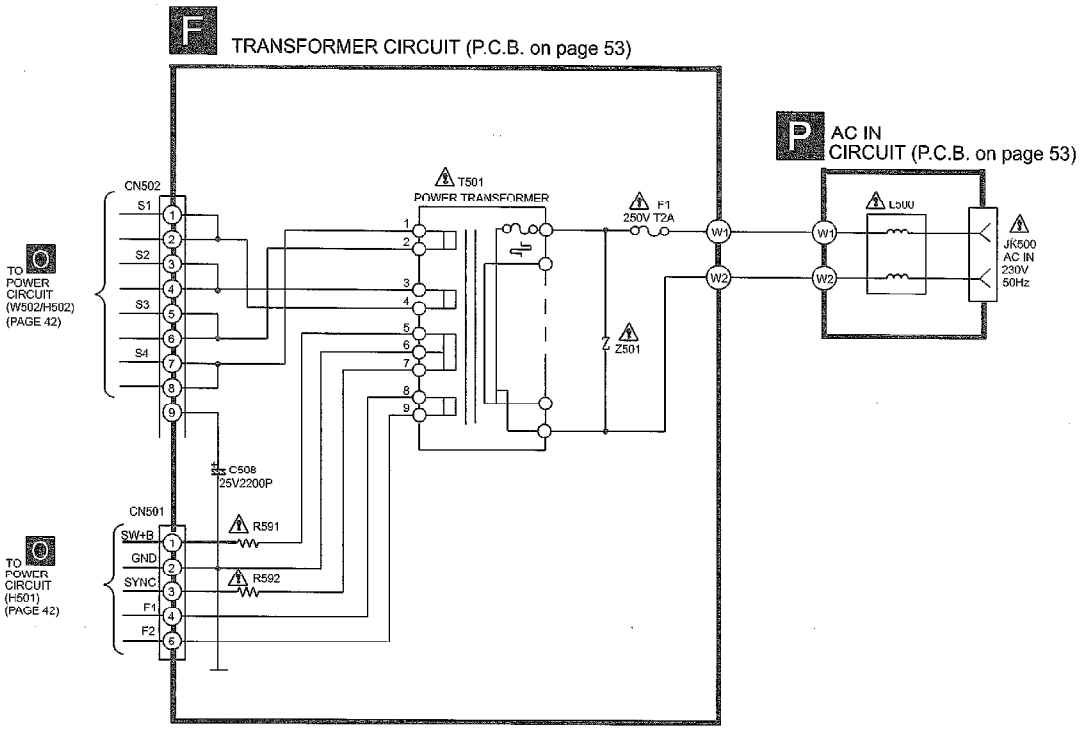
**•Importance safety notice:**

Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

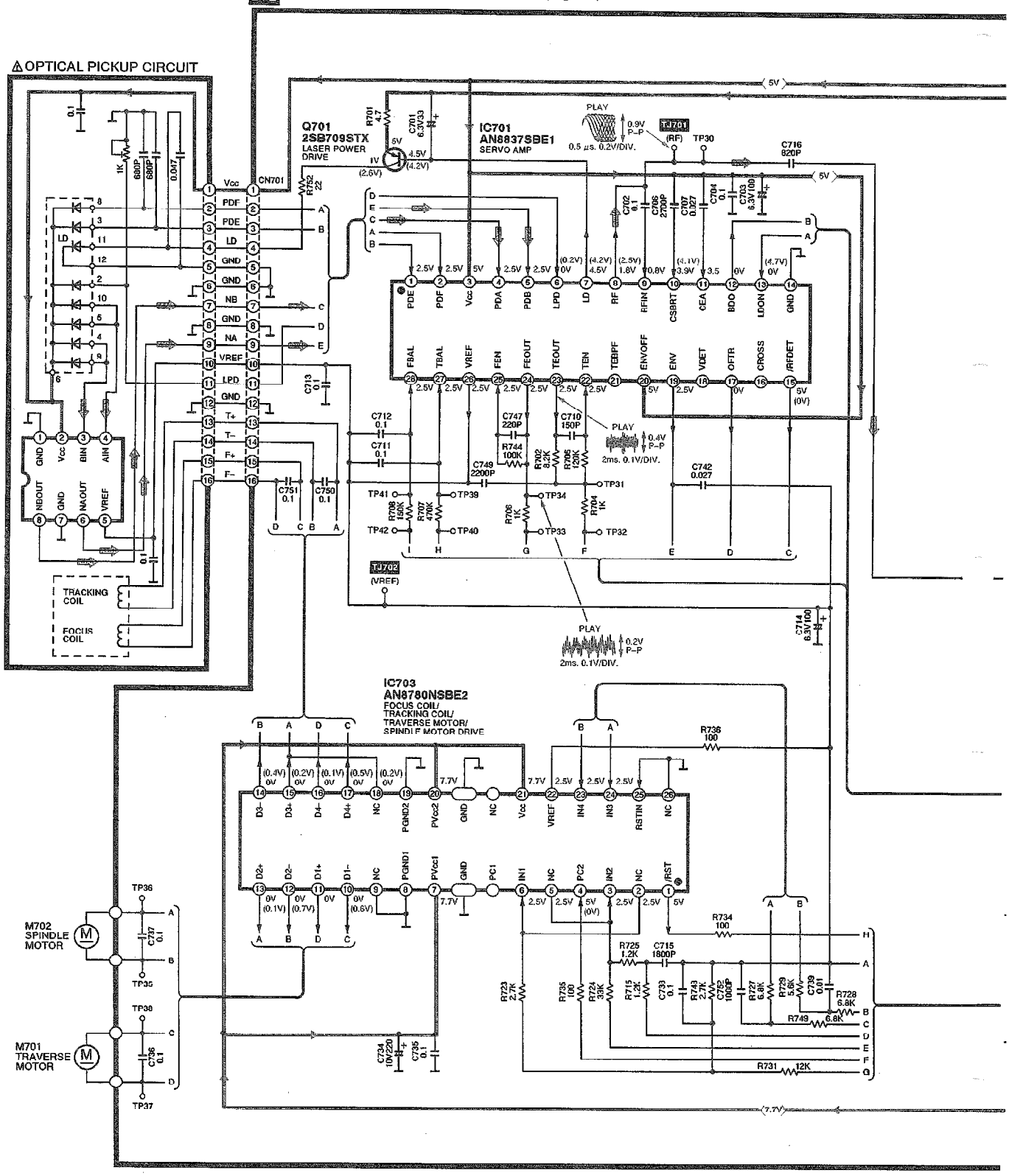
**Caution !**

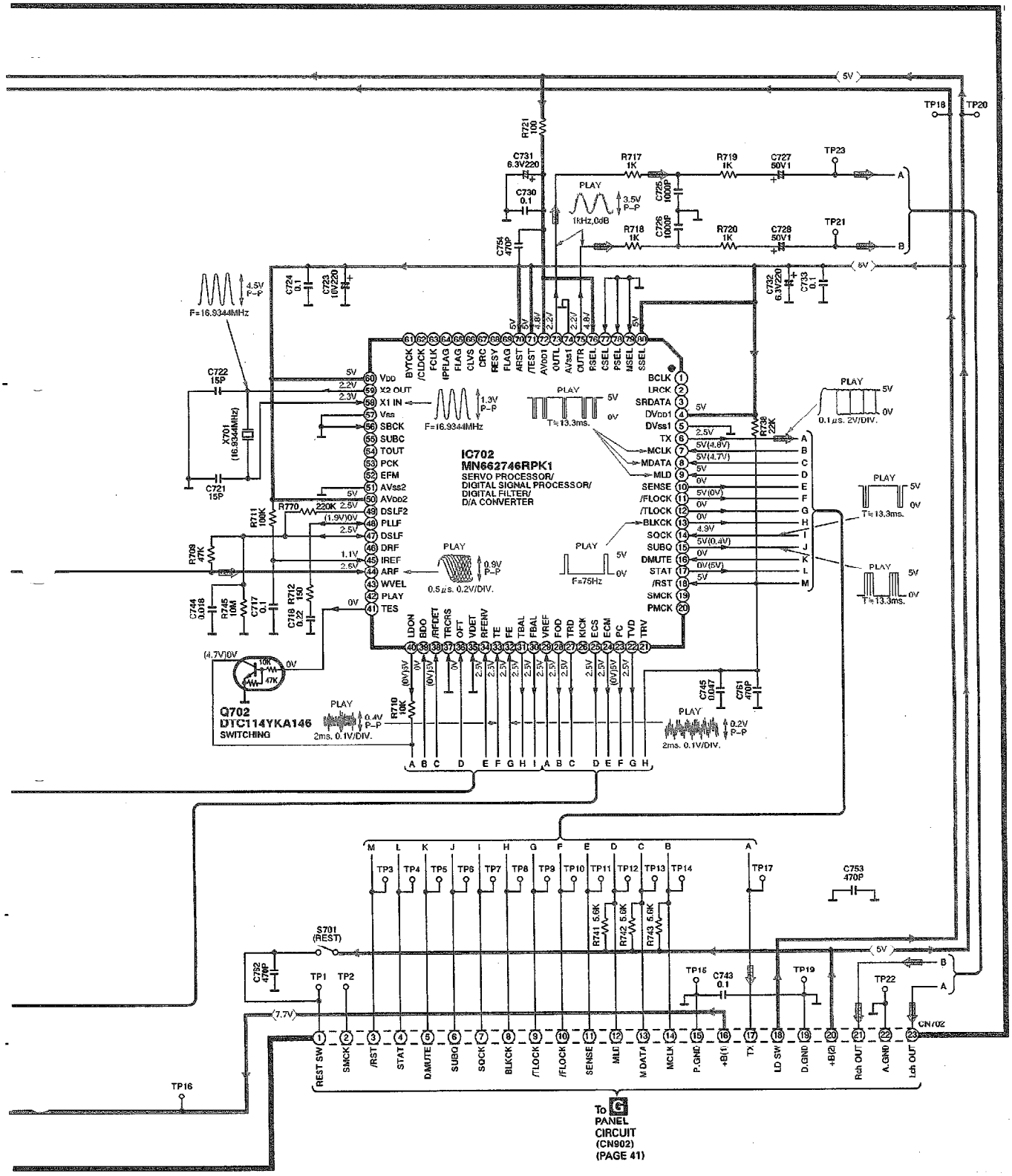
IC, LSI and VLSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
•Cover the parts boxes made of plastics with aluminium foil.
•Put a conductive mat on the work table.
•Ground the soldering iron.
•Do not touch the pins of IC, LSI or VLSI with fingers directly.


I DETECTING SWITCH (1) CIRCUIT
(P.C.B. on page 58)
J DETECTING SWITCH (2) CIRCUIT
(P.C.B. on page 58)
S5 DISC NUMBER DET
S3 UP POSITION DET
S2 PLAY POSITION DET
W1
W2
DNT
GND
SW3
SW2
CN1
To G PANEL CIRCUIT (CN901) (PAGE 41)
S1 STOCKER POSITION DET
TRAY OPEN DET
IC1
DIRECTION SELECT
DRIVE
IC1 BA6418N MOTOR DRIVE
REV
FWD
VSS
VCC
GND
K LOADING MOTOR CIRCUIT (P.C.B. on page 58)

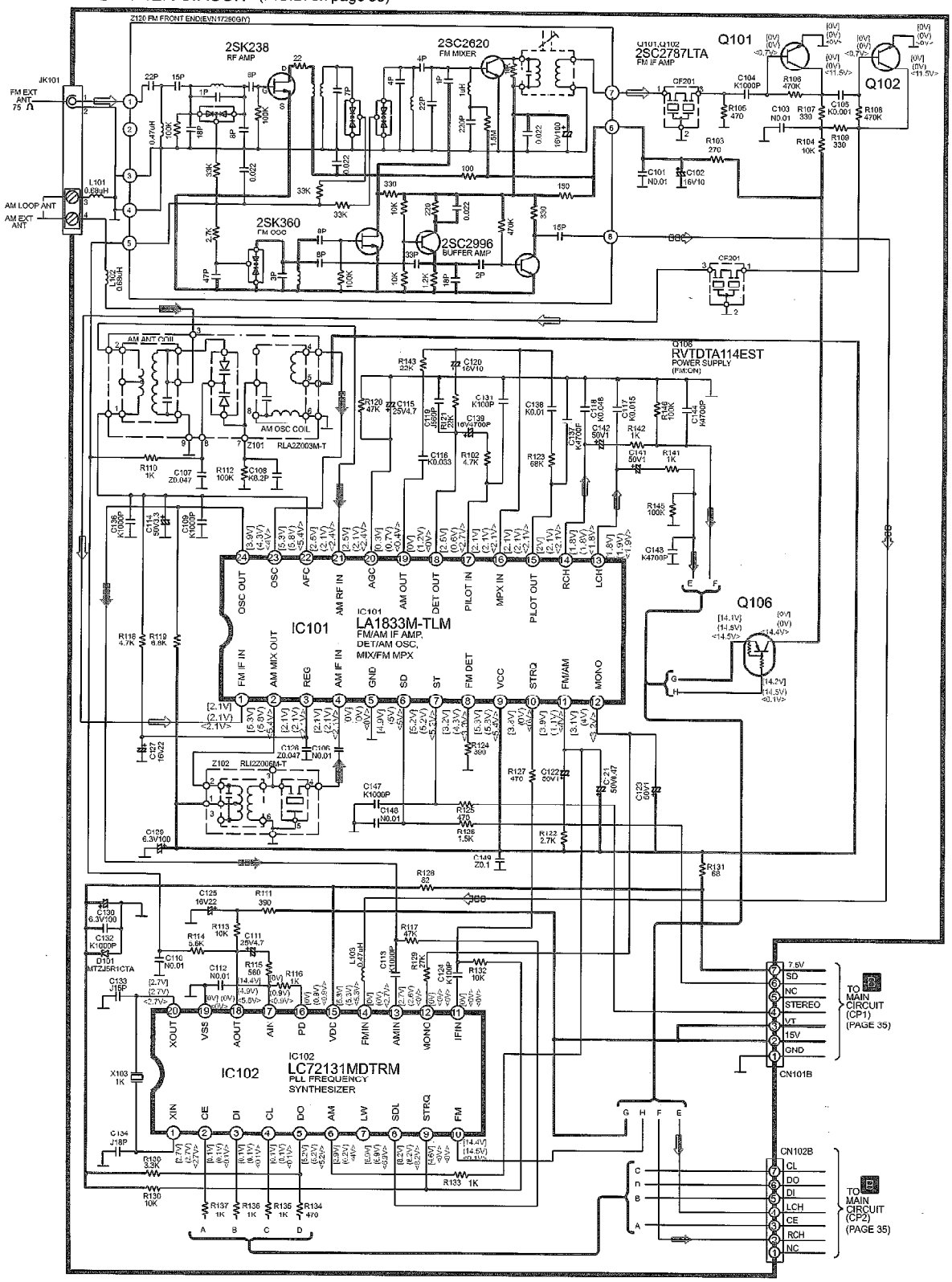

F TRANSFORMER CIRCUIT (P.C.B. on page 53)
P AC IN CIRCUIT (P.C.B. on page 53)
CN502
S1
S2
S3
S4
TO POWER CIRCUIT (W502/H502) (PAGE 42)
T501 POWER TRANSFORMER
F1 250V T2A
L500
JK500 AC IN 230V 50Hz
Z501
C508 25V2200P
CN501
SW+B
GND
SYNC
F1
F2
R591
R592
TO POWER CIRCUIT (H501) (PAGE 42)

## A CD SERVO CIRCUIT (P.C.B. on page 58)

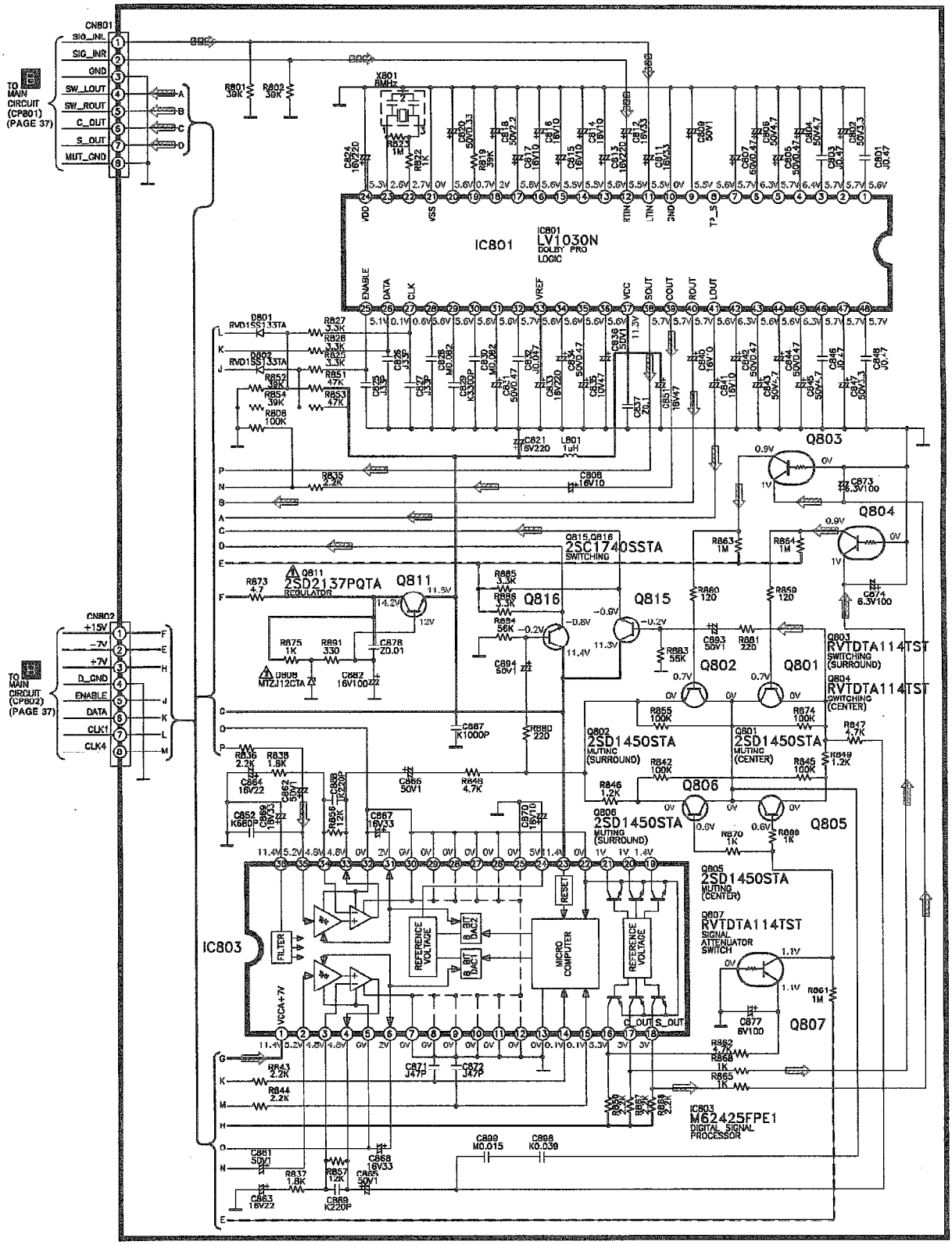



IC702
MN662746RPK1
SERVO PROCESSOR/
DIGITAL SIGNAL PROCESSOR/
DIGITAL FILTER/
D/A CONVERTER
Q702
DTC114YKA146
SWITCHING
To G PANEL CIRCUIT (CN902) (PAGE 41)
CN702

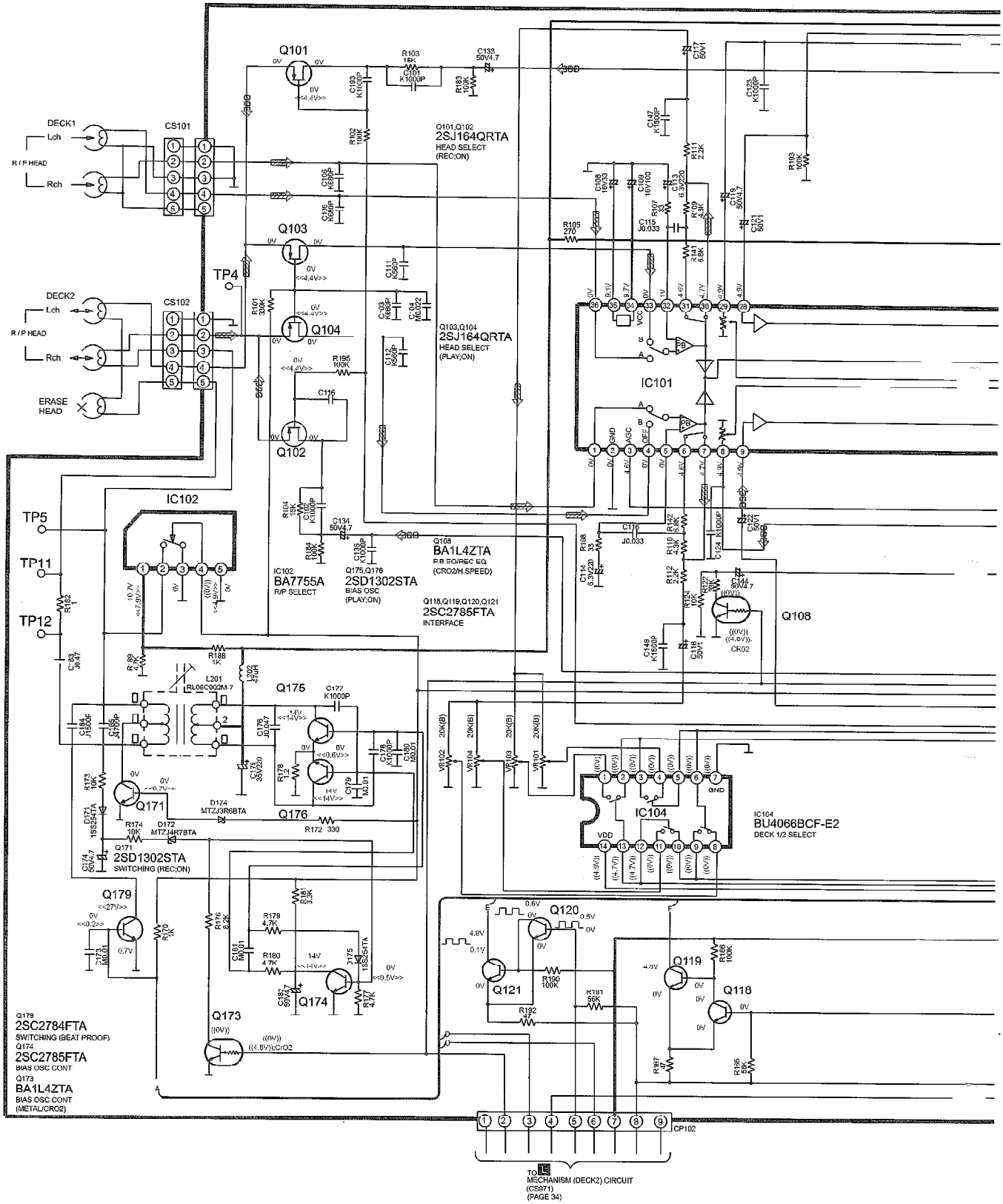
## N TUNER CIRCUIT (P.C.B. on page 55)

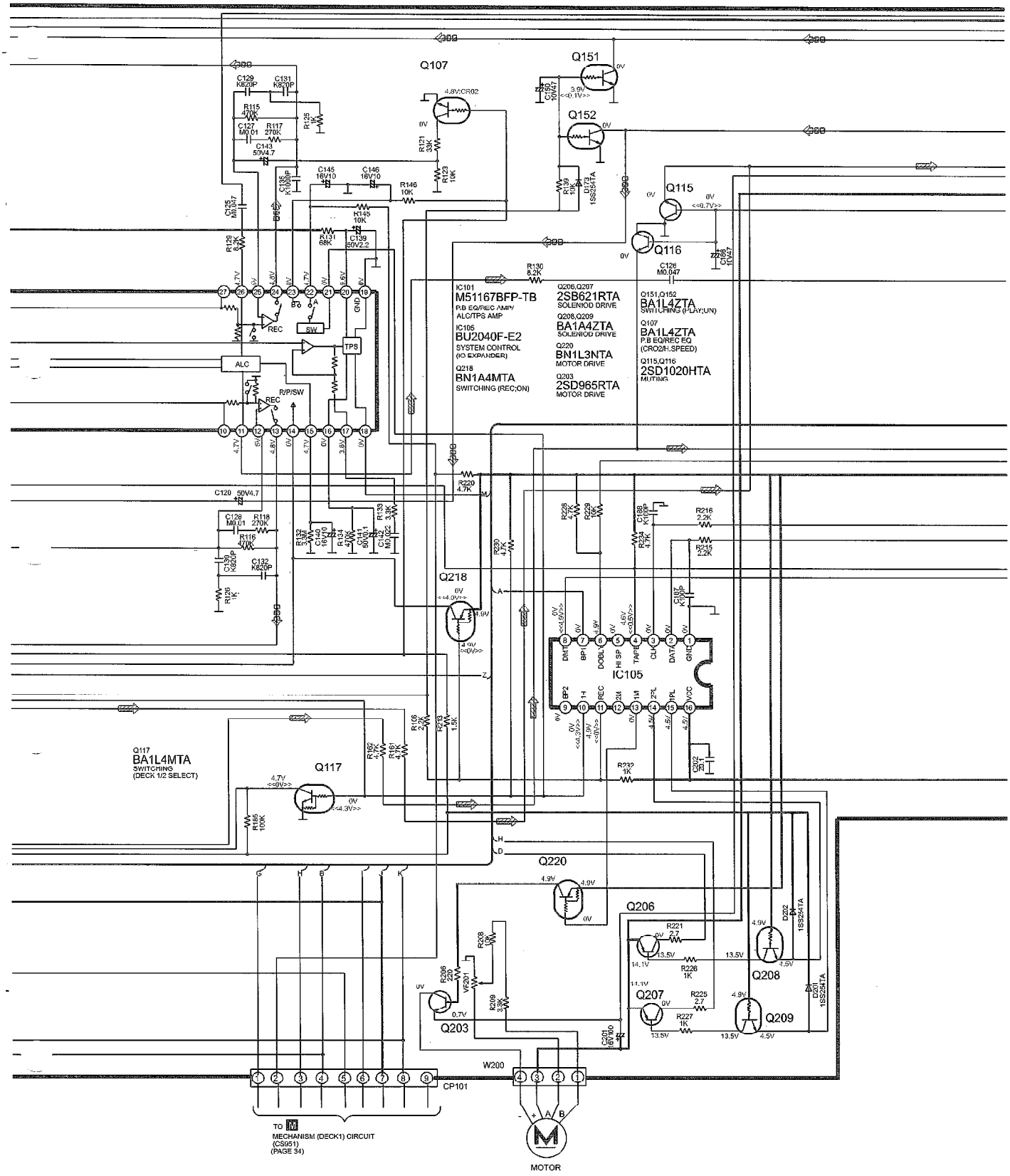


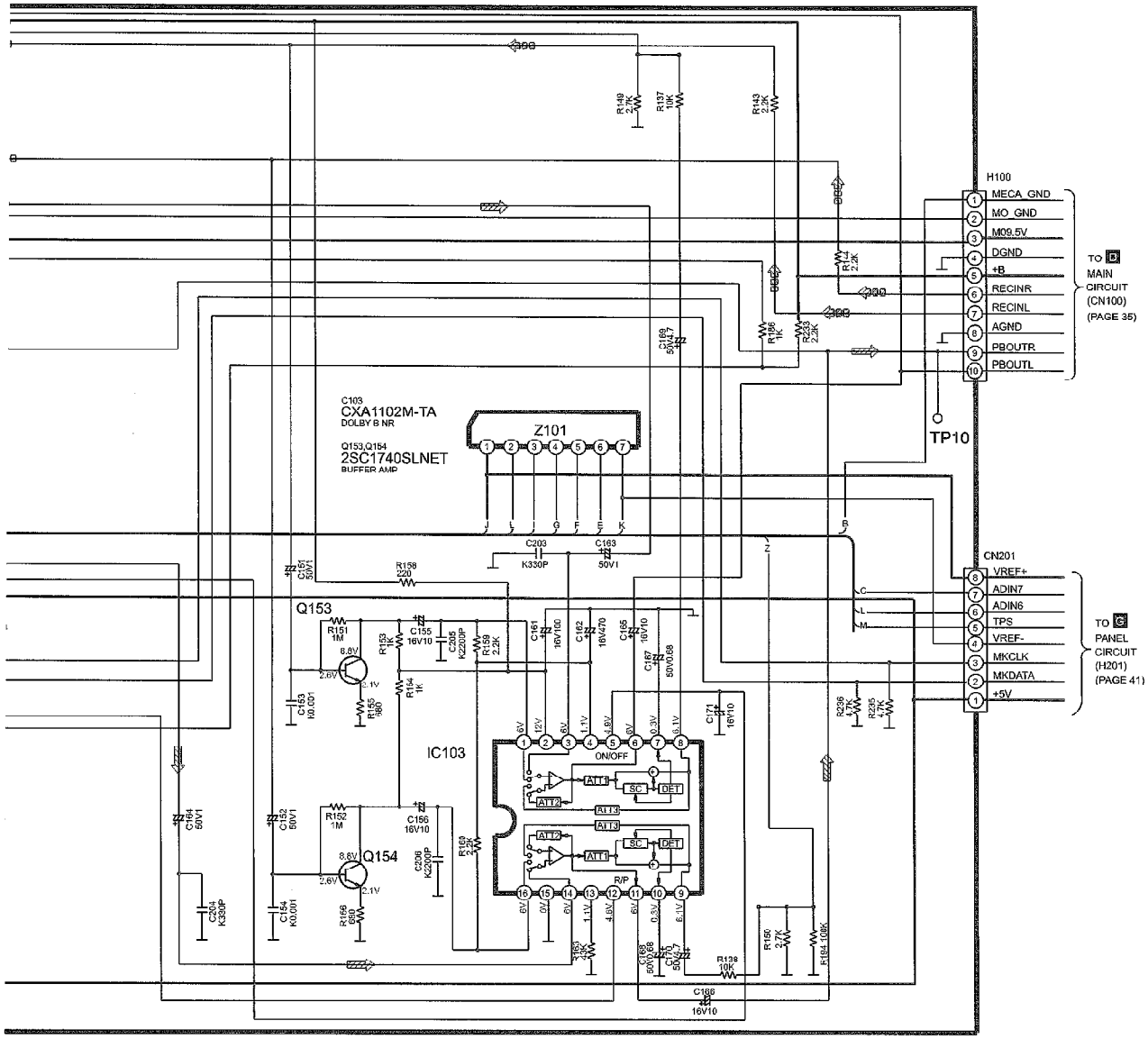
## S PRO LOGIC CIRCUIT (P.C.B. on page 55)



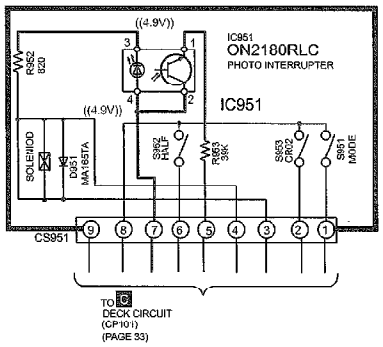
# C DECK CIRCUIT (P.C.B. on page 57)



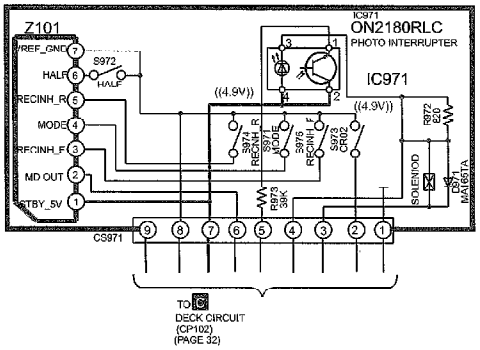

IC101
M51167BFP-TB
P.B EQ/REC AMP/
ALC/TPS AMP
IC106
BU2040F-E2
SYSTEM CONTROL
(IO EXPANDER)
Q218
BN1A4MTA
SWITCHING (REC;ON)
Q206,Q207
2SB621RTA
SOLENIOD DRIVE
Q208,Q209
BA1A4ZTA
SOLENIOD DRIVE
Q220
BN1L3NTA
MOTOR DRIVE
Q203
2SD965RTA
MOTOR DRIVE
Q151,Q152
BA1L4ZTA
SWITCHING (PLAY;ON)
Q107
BA1L4ZTA
P.B EQ/REC EQ
(CRO2/H.SPEED)
Q115,Q116
2SD1020HTA
MUTING
Q117
BA1L4MTA
SWITCHING
(DECK 1/2 SELECT)
IC105
Q107
Q151
Q152
Q115
Q116
Q117
Q218
Q220
Q206
Q207
Q208
Q209
Q203
REC
SW
TPS
ALC
R/P/SW
W200
CP101
TO M
MECHANISM (DECK1) CIRCUIT
(CS951)
(PAGE 34)
MOTOR



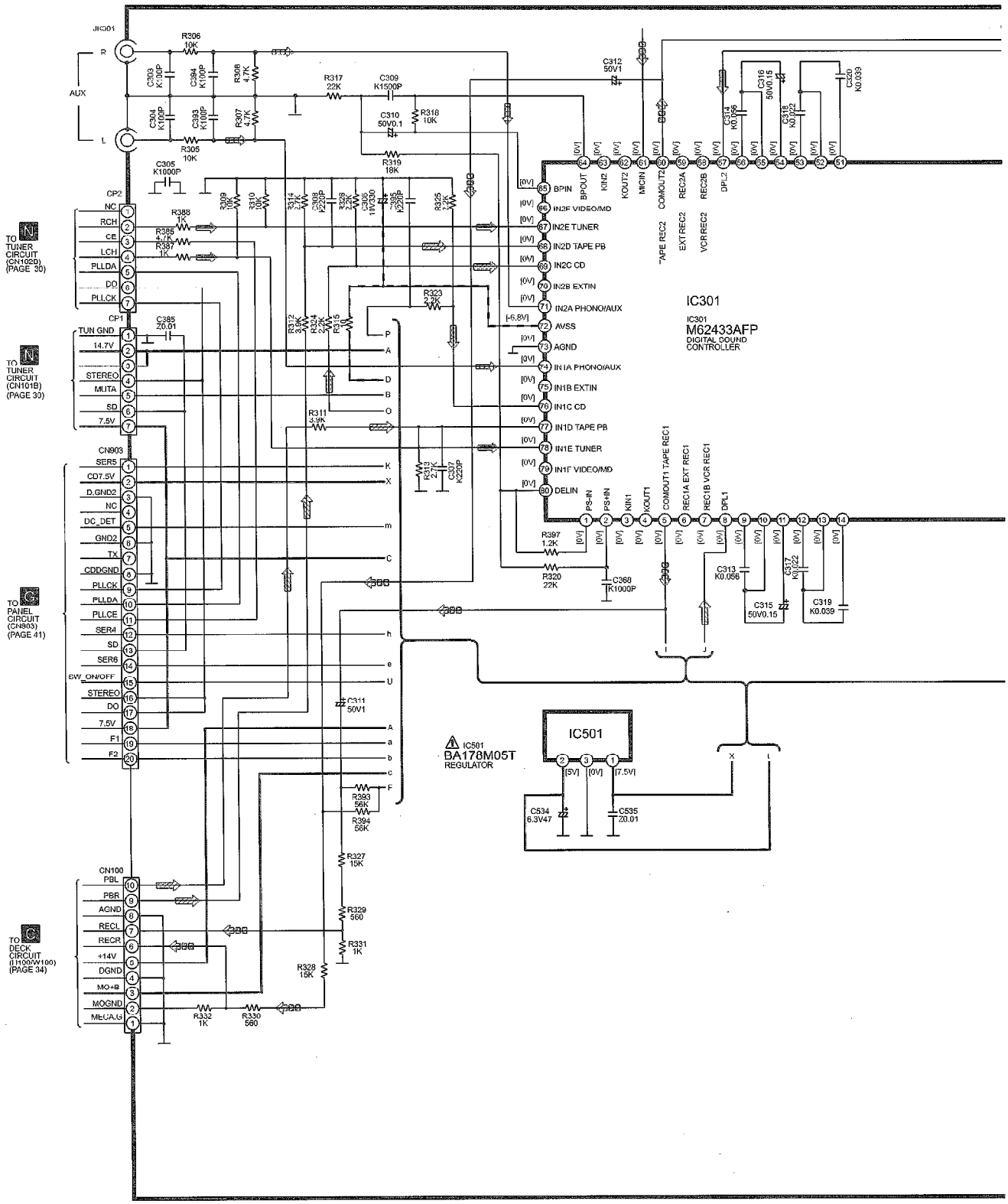

## M MECHANISM (DECK 1) CIRCUIT (P.C.B. on page 56)

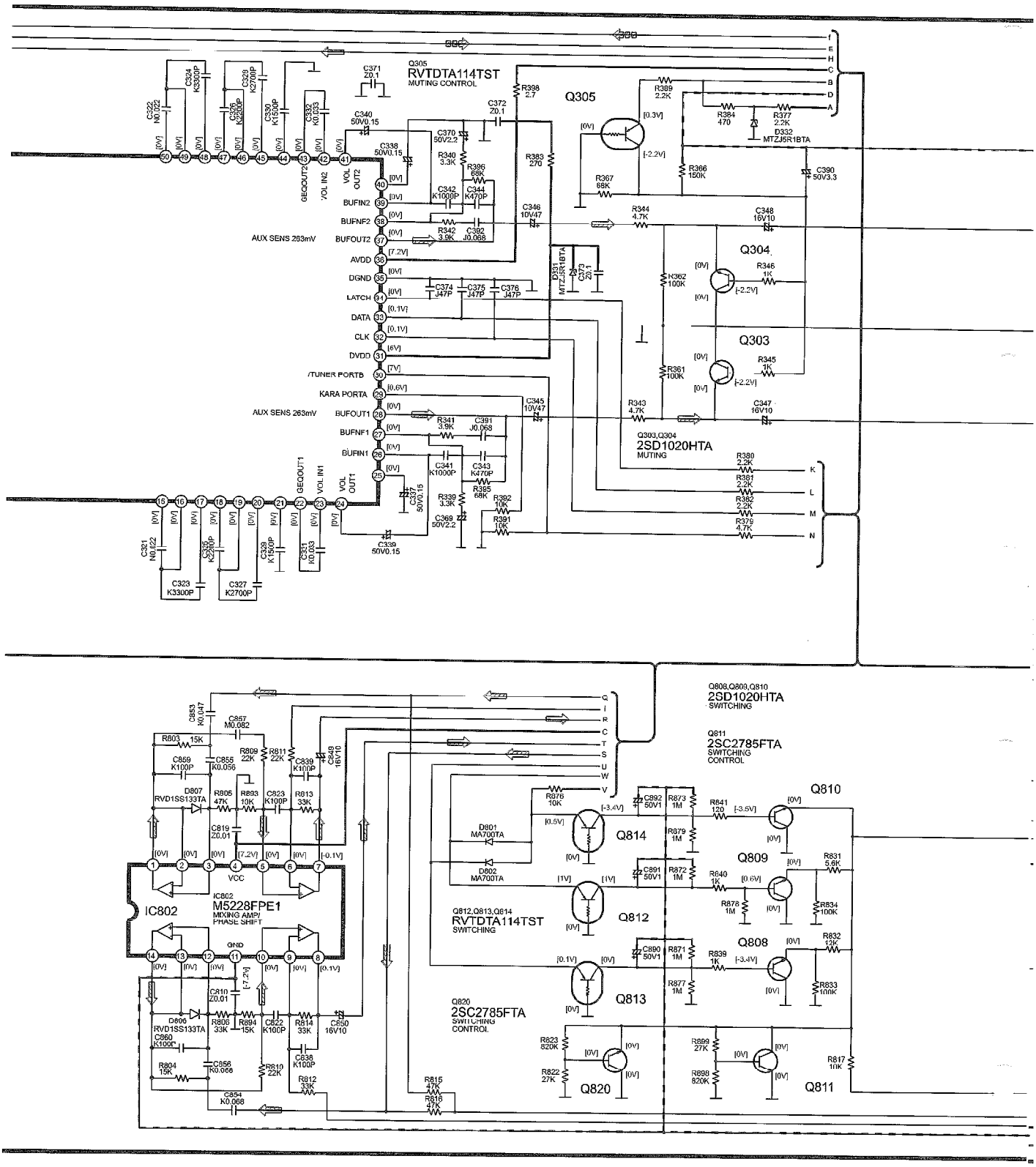


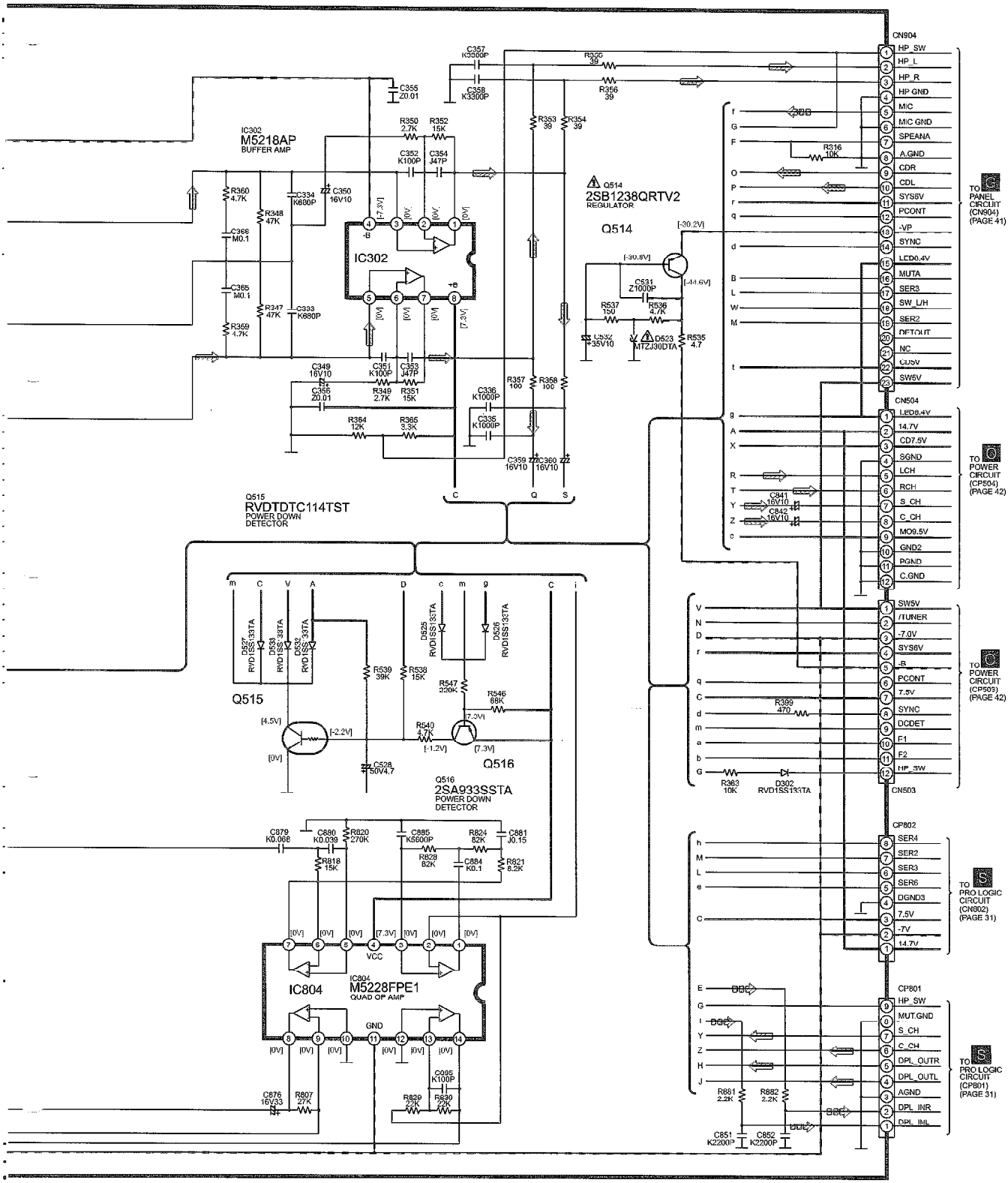

## L MECHANISM (DECK 2) CIRCUIT (P.C.B. on page 56)



## B MAIN CIRCUIT (P.C.B. on page 51)

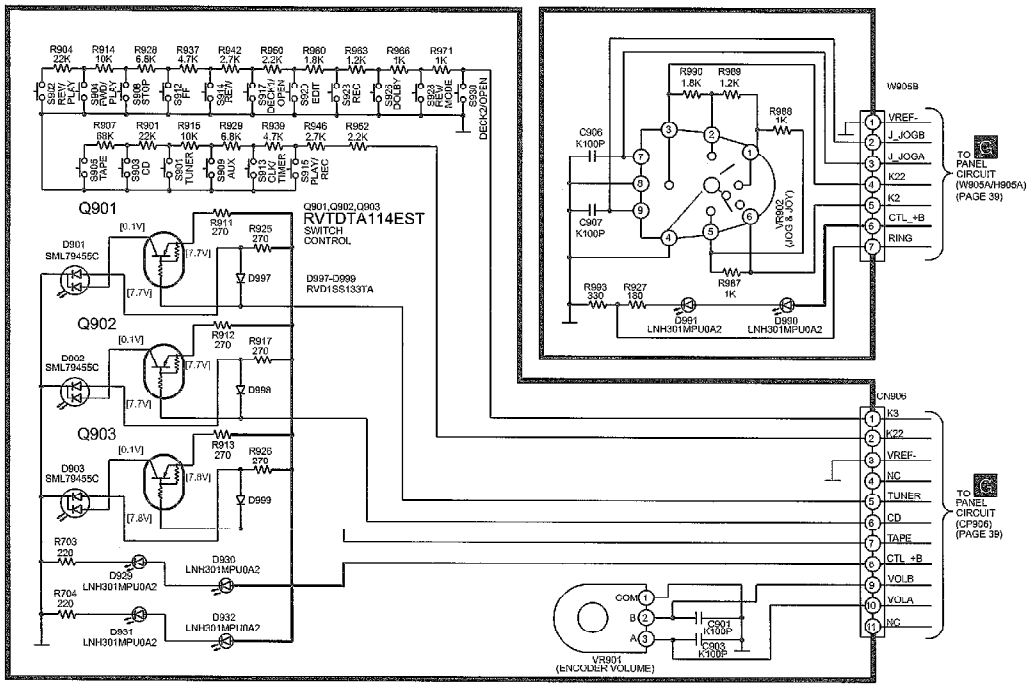



Q305
RVTDTA114TST
MUTING CONTROL
Q305
Q304
Q303
Q303,Q304
2SD1020HTA
MUTING
Q808,Q809,Q810
2SD1020HTA
SWITCHING
Q811
2SC2785FTA
SWITCHING
CONTROL
Q810
Q809
Q808
Q814
Q812
Q813
Q820
2SC2785FTA
SWITCHING
CONTROL
Q812,Q813,Q814
RVTDTA114TST
SWITCHING
IC802
M5228FPE1
MIXING AMP/
PHASE SHIFT
AUX SENS 263mV
AUX SENS 263mV
/TUNER PORTB
KARA PORTA
LATCH
DATA
CLK
DVDD
AVDD
DGND
BUFIN2
BUFNF2
BUFOUT2
BUFOUT1
BUFNF1
BUFIN1
VOL OUT2
VOL OUT1
VOL IN2
VOL IN1
GEQOUT2
GEQOUT1
VCC
GND
D332
MTZJ5R1BTA
D331
MTZJ5R1BTA
D801
MA700TA
D802
MA700TA
D807
RVD1SS133TA
D808
RVD1SS133TA

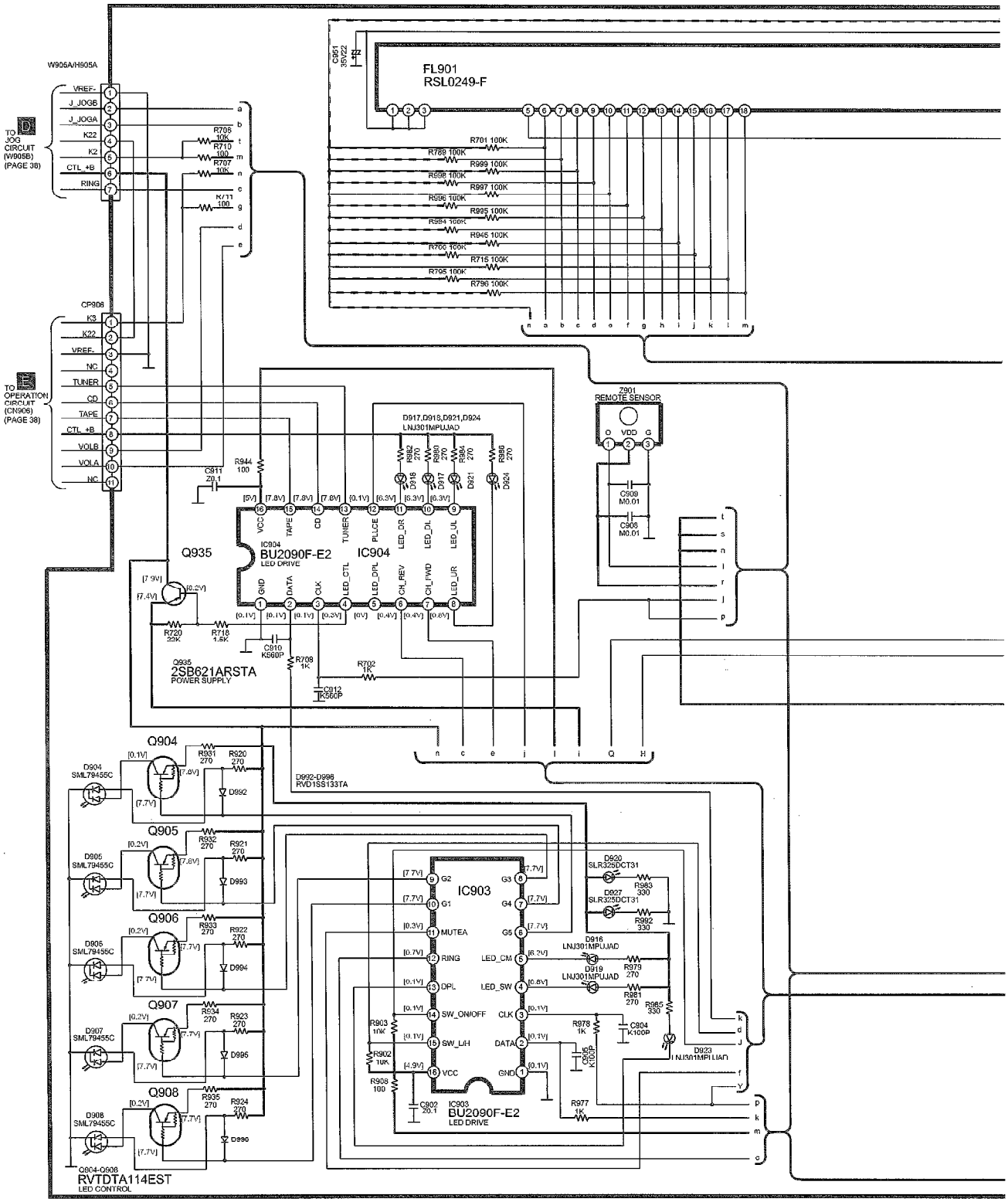

IC302
M5218AP
BUFFER AMP
Q514
2SB1238QRTV2
REGULATOR
Q515
RVDTDTC114TST
POWER DOWN
DETECTOR
Q516
2SA933SSTA
POWER DOWN
DETECTOR
IC804
M5228FPE1
QUAD OP AMP
CN904
CN504
CN503
CP802
CP801
TO PANEL CIRCUIT (CN904) (PAGE 41)
TO POWER CIRCUIT (CP504) (PAGE 42)
TO POWER CIRCUIT (CP503) (PAGE 42)
TO PRO LOGIC CIRCUIT (CN802) (PAGE 31)
TO PRO LOGIC CIRCUIT (CP801) (PAGE 31)

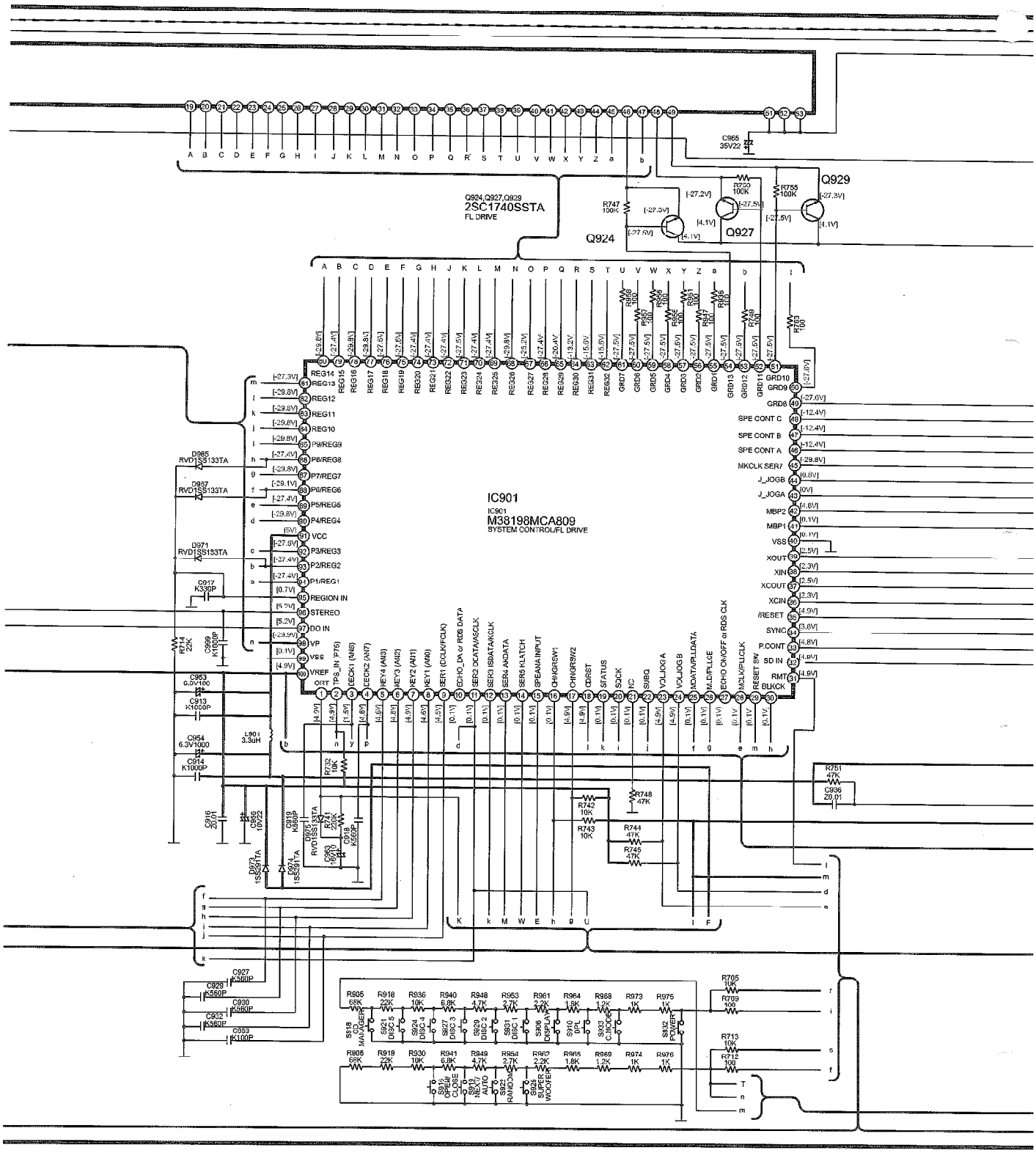
E OPERATION CIRCUIT (P.C.B. on page 56)

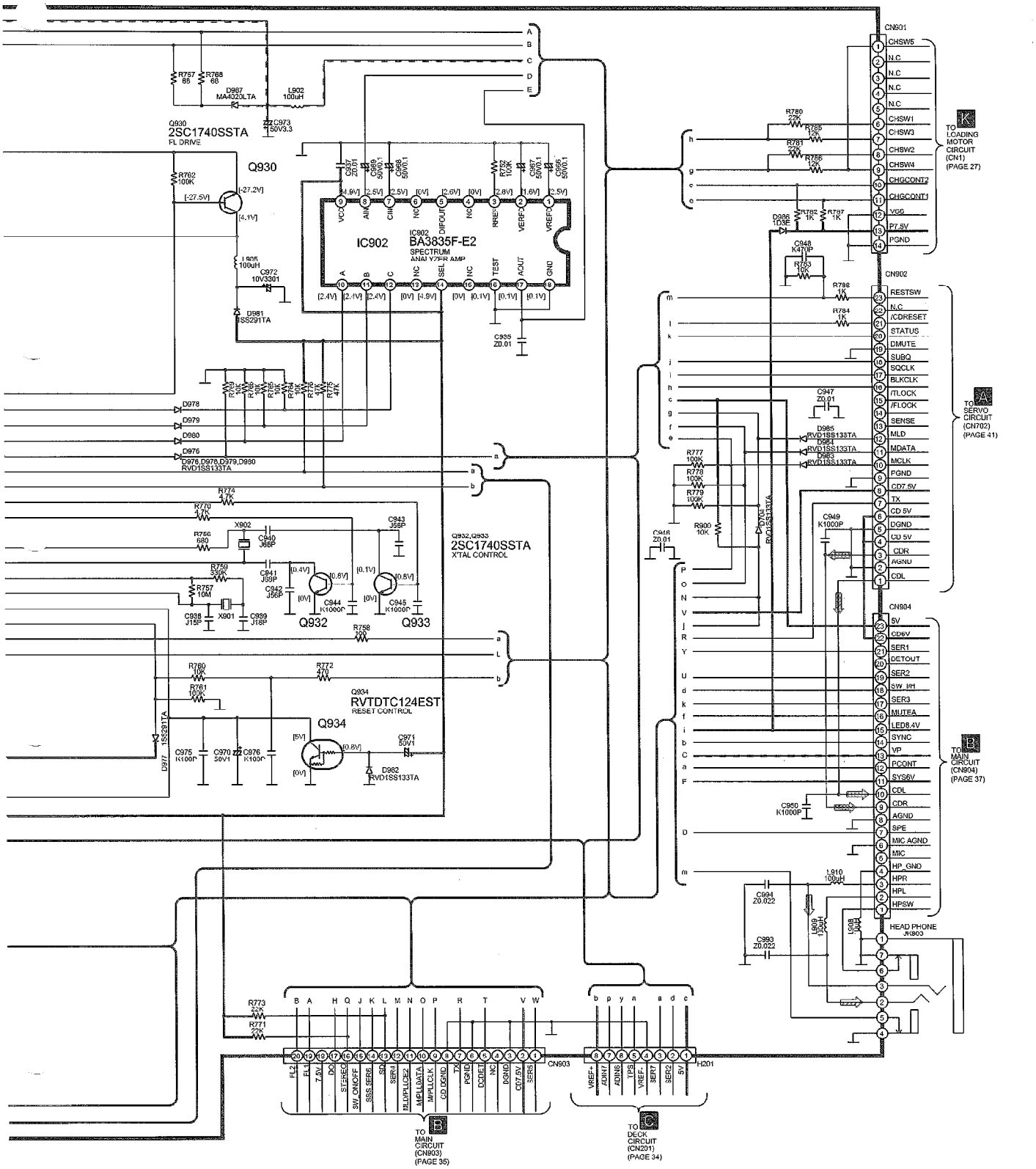
D JOG CIRCUIT (P.C.B. on page 56)



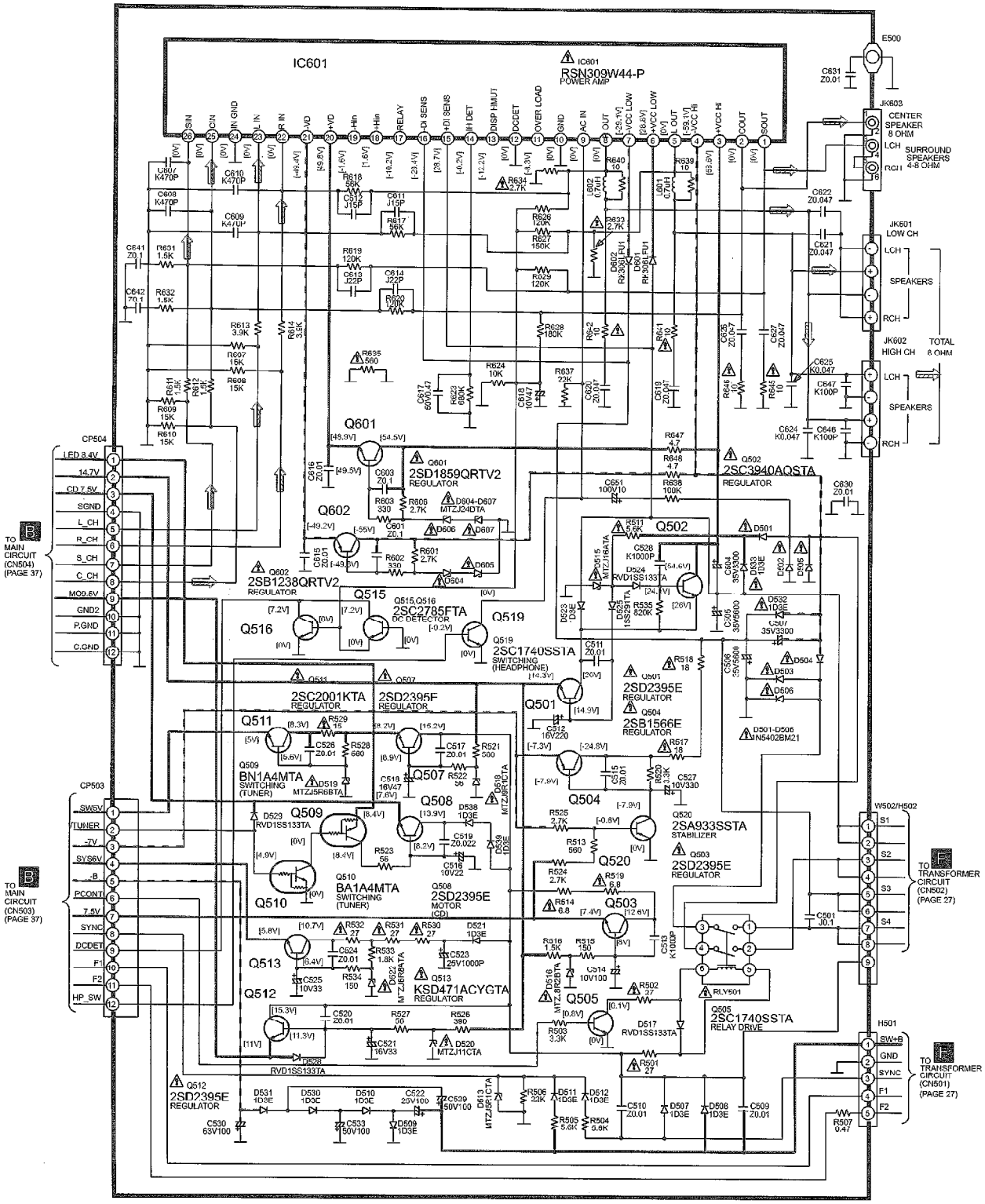
## G PANEL CIRCUIT (P.C.B. on page 52)



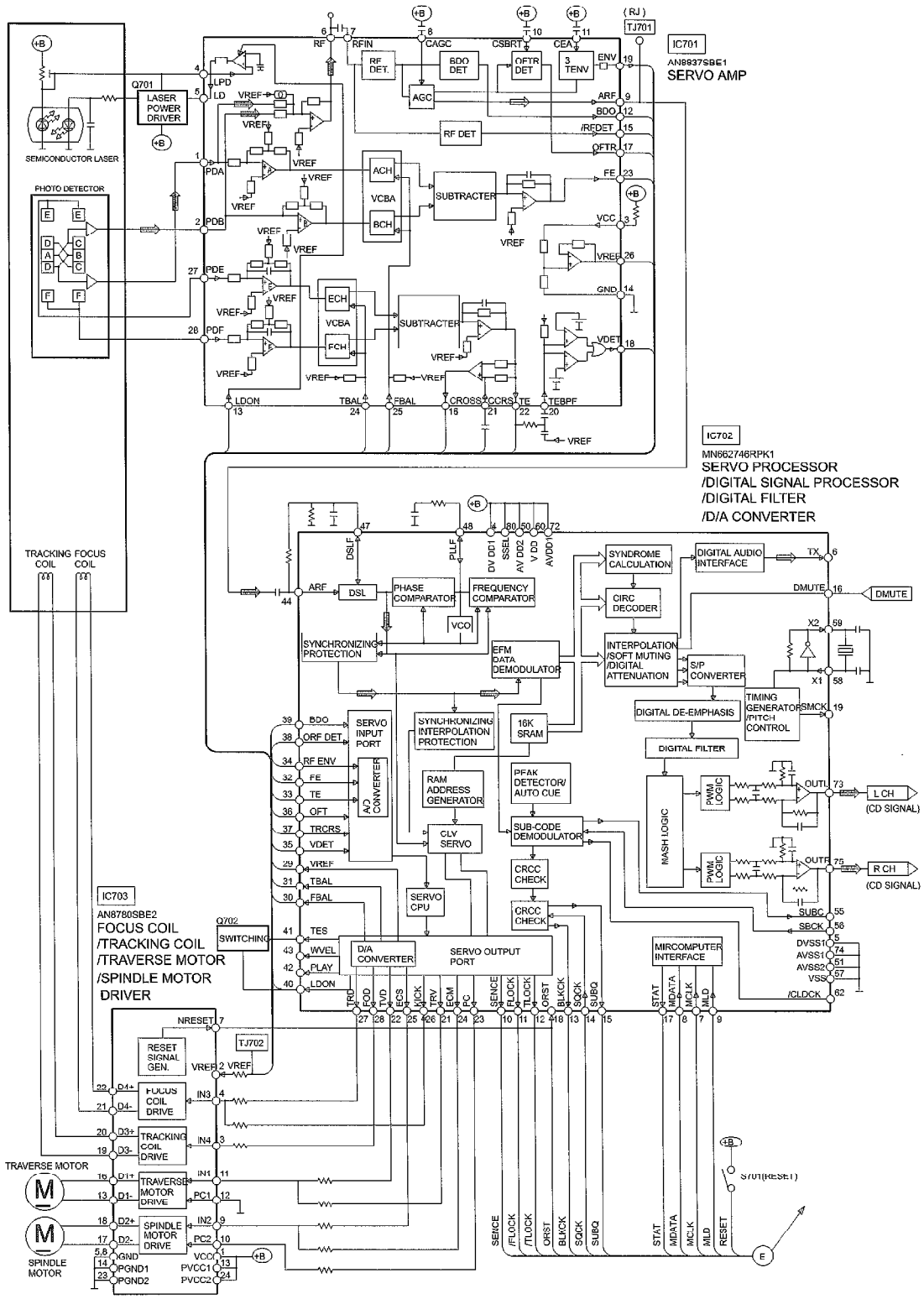

Q924,Q927,Q929
2SC1740SSTA
FL DRIVE
Q924
Q927
Q929
IC901
M38198MCA809
SYSTEM CONTROL/FL DRIVE
SPE CONT C
SPE CONT B
SPE CONT A
MKCLK SER7
J_JOGB
J_JOGA
MBP2
MBP1
VSS
XOUT
XIN
XCOUT
XCIN
/RESET
SYNC
P.CONT
SD IN
RMT
BLKCK
VCC
REGION IN
STEREO
DO IN
VP
VREF
CRT
P3/REG3
P2/REG2
P1/REG1
P9/REG9
P8/REG8
P7/REG7
P6/REG6
P5/REG6
P4/REG4
REG14
REG13
REG12
REG11
REG10
GRD8
GRD9
GRD10
GRD11
GRD12
GRD13
GRD1
GRD2
GRD3
GRD4
GRD5
GRD6
GRD7
REG32
REG31
REG30
REG29
REG28
REG27
REG26
REG25
REG24
REG23
REG22
REG21
REG20
REG19
REG18
REG17
REG16
REG15
TPS_IN (P76)
CECK1 (NM6)
CECK2 (AN7)
KEY4 (AN3)
KEY3 (AN2)
KEY2 (AN1)
KEY1 (AN0)
SER1 (CCLK/PCLK)
ECHO_DA or RDS DATA
SER2 DCATA/ASCLK
SER3 ISDATA/KCLK
SER4 AKDATA
SER5 KLATCH
SPEAK-INPUT
CHKGRSW1
CHNGRSW2
CDRST
STATUS
SACK
NC
SUBQ
VOLJOGA
VOLJOGB
MDATA/PLLDATA
M.D/PLLCE
ECHO ON/OFF or RDS CLK
MCLK/PLLCLK
RESET SW
D965 RVD1SS133TA
D967 RVD1SS133TA
D971 RVD1SS133TA
D975 RVD1SS133TA
D973 1SS281TA
D974 1SS281TA
C965 35V22
C917 K330P
C999 K1000P
C953 6.3V100
C913 K1000P
C954 6.3V1000
C914 K1000P
L901 3.3uH
C916 Z0.01
C925 10V47
C919 K560P
C918 K560P
C927 K560P
C928 K560P
C930 K560P
C932 K560P
C933 K100P
R714 22K
R732 10K
R741 22K
R742 10K
R743 10K
R744 47K
R745 47K
R748 47K
R751 47K
C936 Z0.01
R705 10K
R709 100
R713 10K
R712 100
R905 68K
R918 22K
R936 10K
R940 6.8K
R948 4.7K
R953 2.7K
R961 2.2K
R964 1.8K
R968 1.2K
R973 1K
R975 1K
S918 MANUAL/AUTO
S921 DISC 5
S924 DISC 4
S927 DISC 3
S929 DISC 2
S931 DISC 1
S306 DISPLAY
S910 DPL
S933 C.MODE
S932 REPEAT
R906 68K
R919 22K
R930 10K
R941 6.8K
R949 4.7K
R954 2.7K
R962 2.2K
R965 1.8K
R969 1.2K
R974 1K
R976 1K
S916 TIME CLOSE
S919 MANUAL/AUTO
S922 RANDOM
S925 SUPER WOOFER

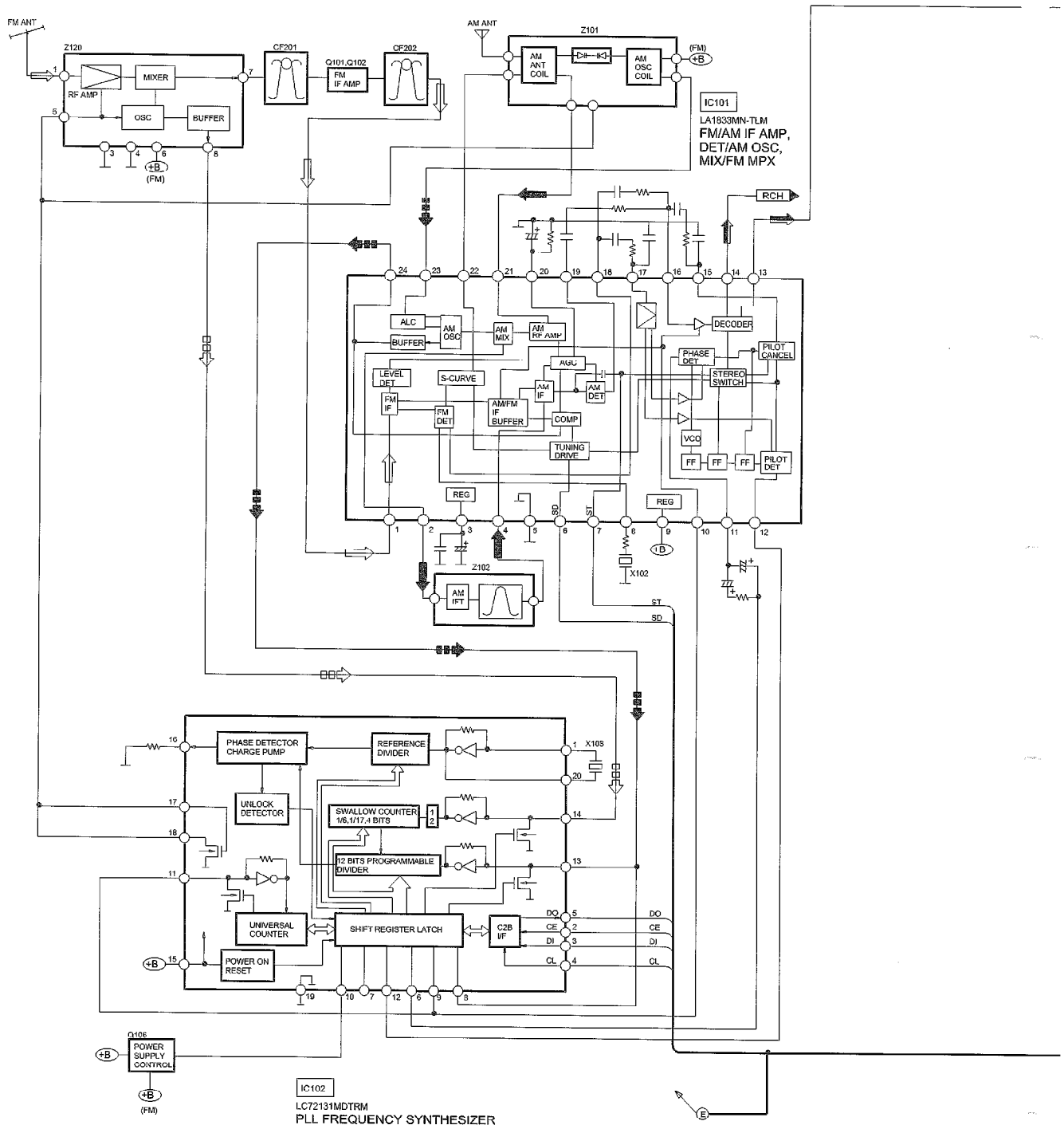

IC902
BA3835F-E2
SPECTRUM ANALYZER AMP
Q930
2SC1740SSTA
FL DRIVE
Q932
Q933
2SC1740SSTA
X'TAL CONTROL
Q934
RVTDTC124EST
RESET CONTROL
CN901
CHSW5
N.C
CHSW1
CHSW3
CHSW2
CHSW4
CHGCONT2
CHGCONT1
VSS
P7.5V
PGND
TO LOADING MOTOR CIRCUIT (CN1) (PAGE 27)
CN902
RESTSW
/CDRESET
STATUS
DMUTE
SUBQ
SQCLK
BLKCLK
/TLOCK
/FLOCK
SENSE
MLD
MDATA
MCLK
PGND
CD7.5V
TX
CD 5V
DGND
CD 5V
CDR
AGND
CDL
TO SERVO CIRCUIT (CN702) (PAGE 41)
CN904
5V
CD6V
SER1
DETOUT
SER2
SW I/H
SER3
MUTEA
LED8.4V
SYNC
VP
PCONT
SYS6V
CDL
CDR
AGND
SPE
MIC AGND
MIC
HP_GND
HPR
HPL
HPSW
TO MAIN CIRCUIT (CN904) (PAGE 37)
HEAD PHONE JK803
CN903
FL2
FL1
7.6V
DO
STEREO
SW_ONOFF
SBS_SER6
SBCK
SER4
MLD/PLLCE2
MPLLDATA
MPLLCLK
CD DGND
TX
PGND
DCDET
NC
DGND
CD7.5V
SER5
TO MAIN CIRCUIT (CN803) (PAGE 35)
H201
VREF+
ADIN7
ADIN6
TPS
VREF-
SER7
SER2
5V
TO DECK CIRCUIT (CN201) (PAGE 34)

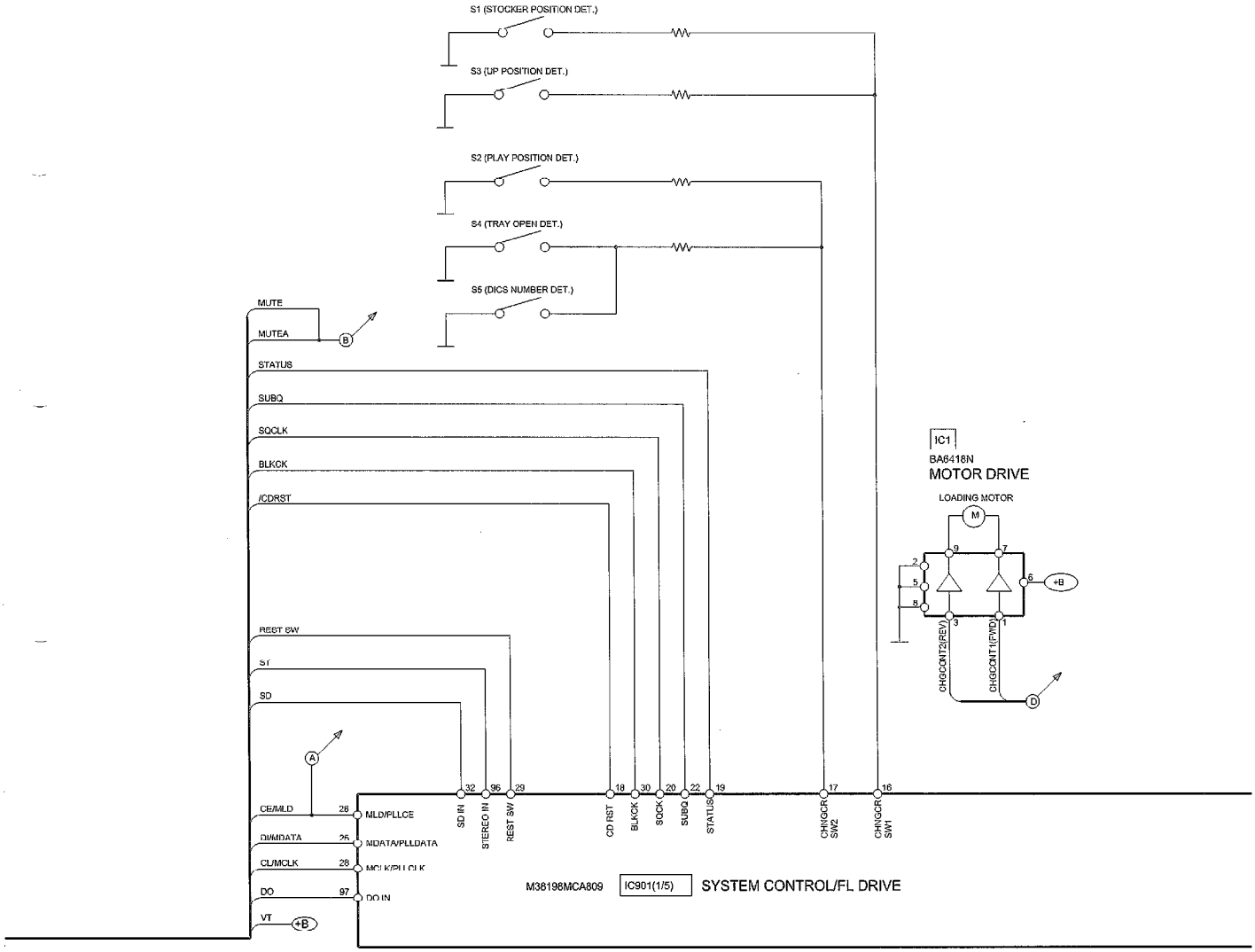
O POWER CIRCUIT (P.C.B. on page 54)

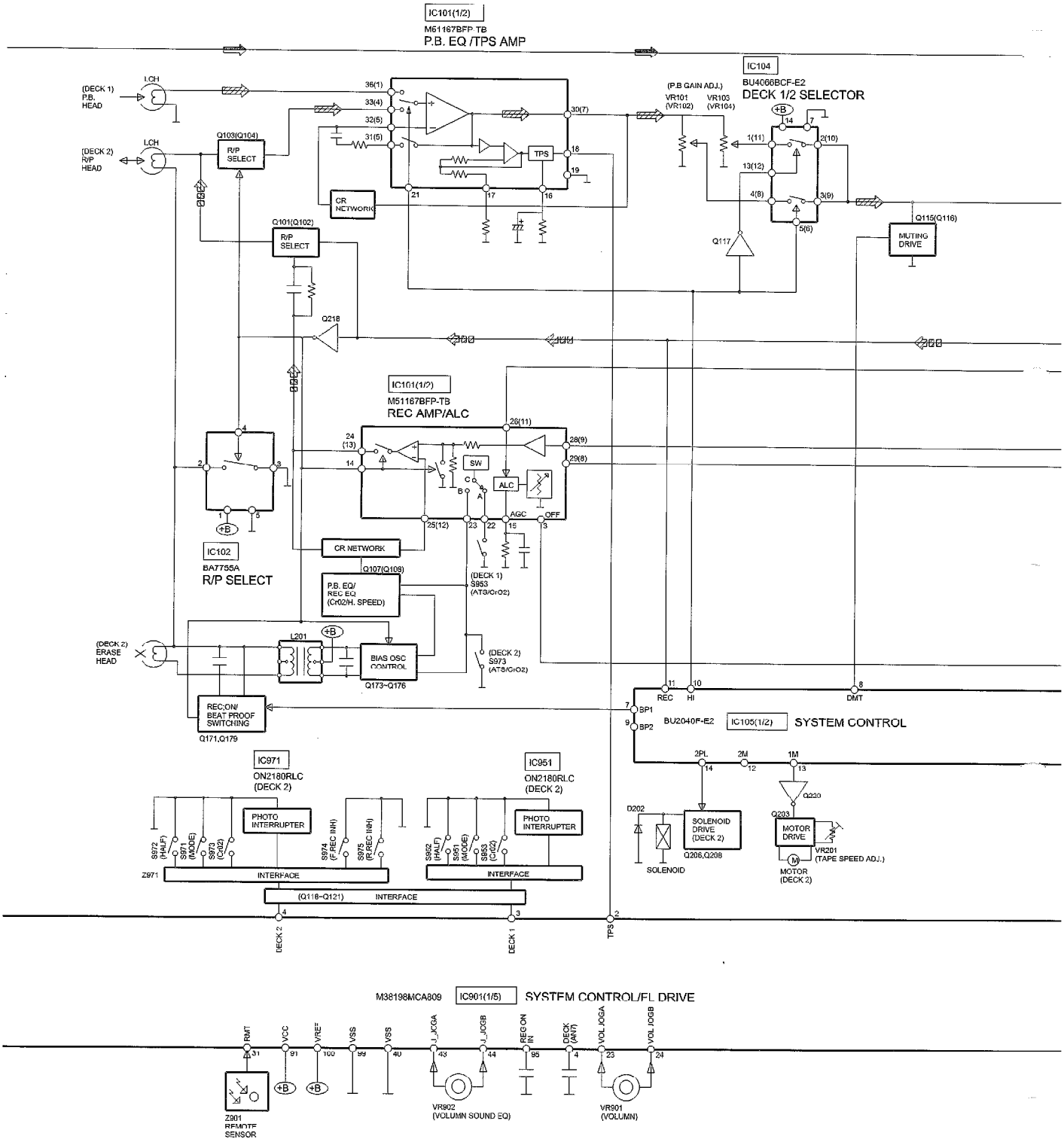


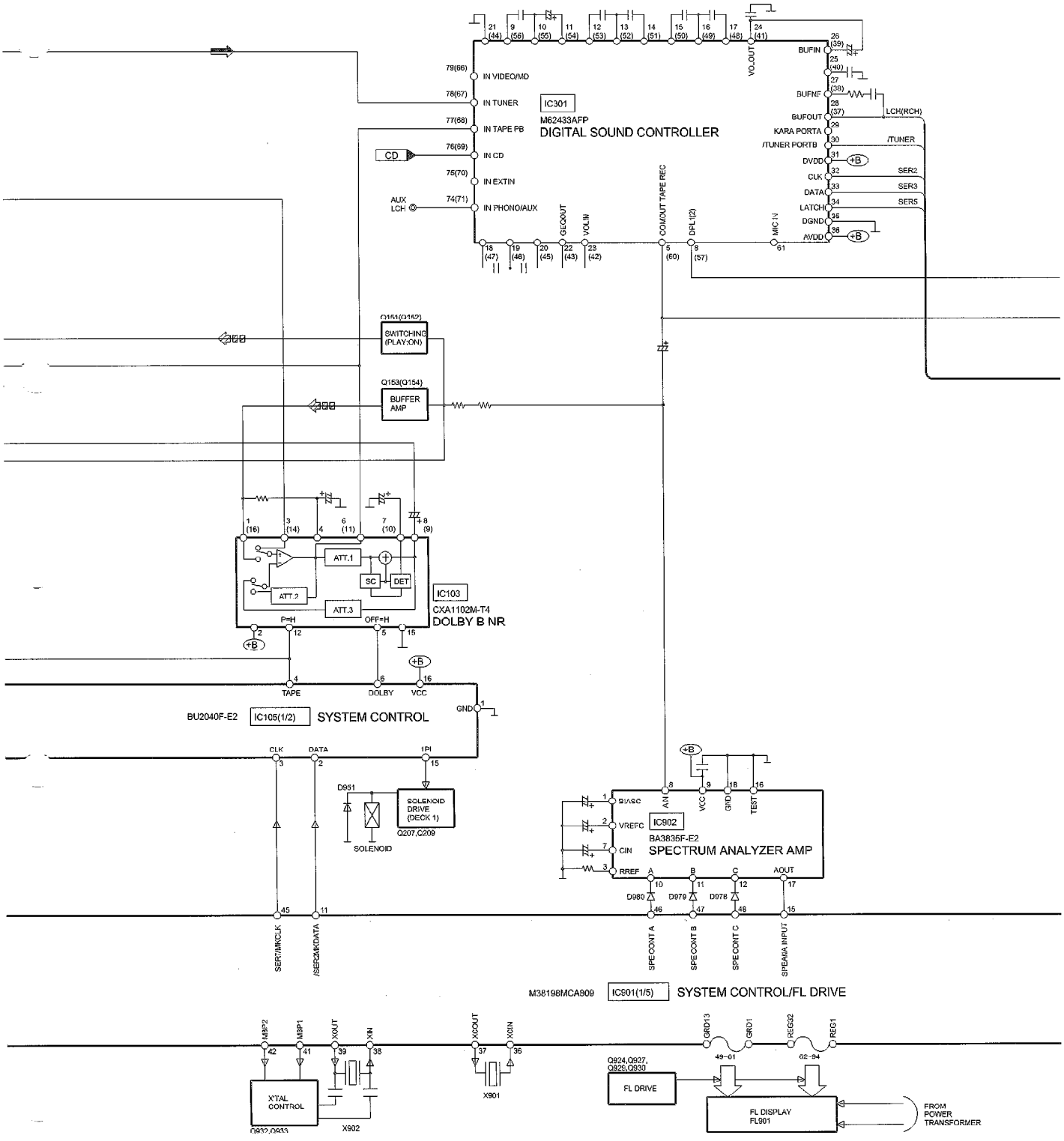
# ■ Block Diagram

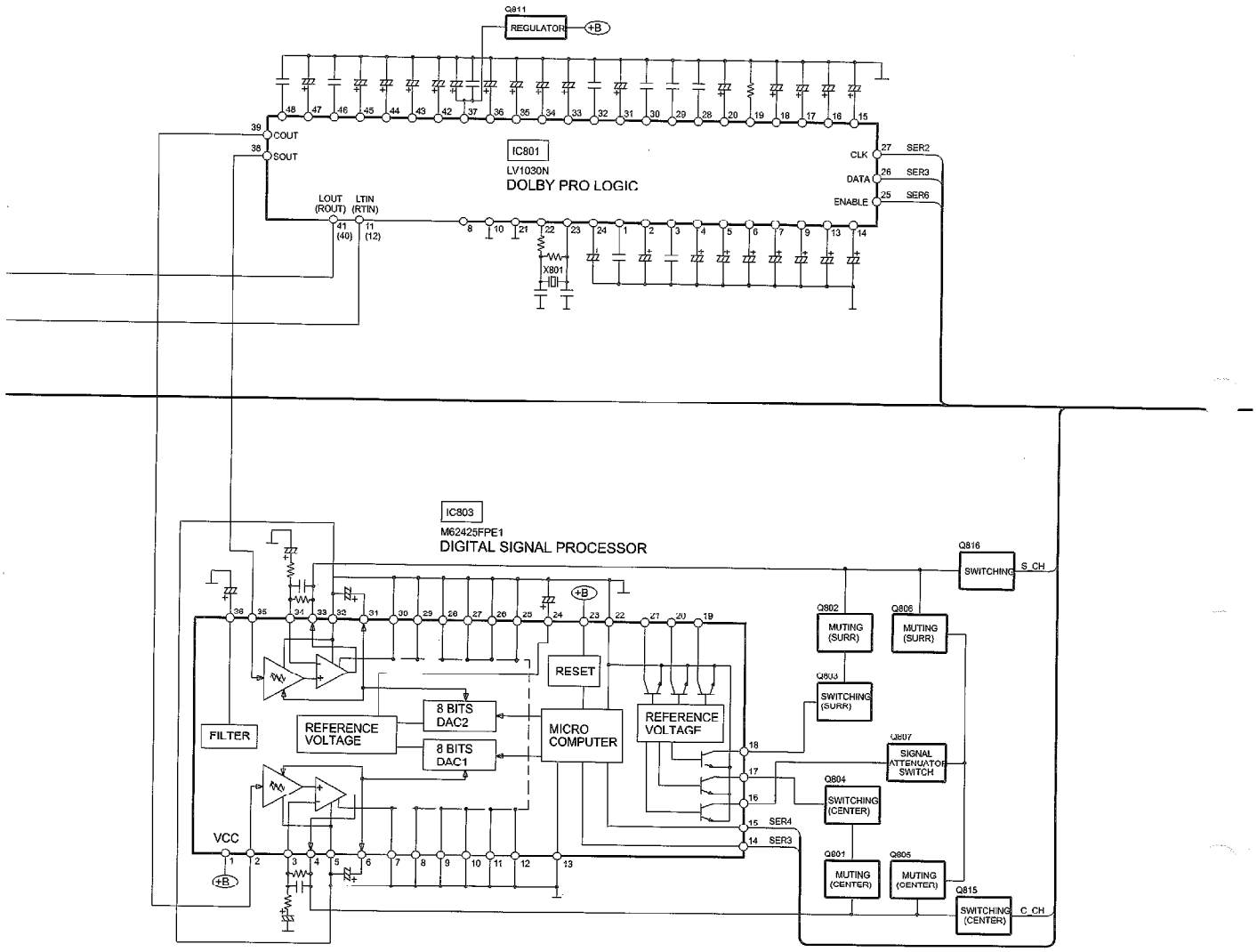



FM ANT
Z120
MIXER
RF AMP
OSC
BUFFER
CF201
Q101,Q102
FM IF AMP
CF202
AM ANT
Z101
AM ANT COIL
AM OSC COIL
(FM)
+B
IC101
LA1833MN-TLM
FM/AM IF AMP, DET/AM OSC, MIX/FM MPX
RCH
ALC
BUFFER
AM OSC
AM MIX
AM RF AMP
DECODER
PILOT CANCEL
PHASE DET
STEREO SWITCH
AGC
LEVEL DET
S-CURVE
FM IF
FM DET
AM/FM IF BUFFER
AM IF
AM DET
COMP
TUNING DRIVE
VCO
FF
PILOT DET
REG
SD
ST
Z102
AM IFT
X102
PHASE DETECTOR CHARGE PUMP
REFERENCE DIVIDER
X103
UNLOCK DETECTOR
SWALLOW COUNTER 1/6,1/17,-1 BITS
12 BITS PROGRAMMABLE DIVIDER
UNIVERSAL COUNTER
SHIFT REGISTER LATCH
C2B I/F
DO
CE
DI
CL
POWER ON RESET
Q106
POWER SUPPLY CONTROL
IC102
LC72131MDTRM
PLL FREQUENCY SYNTHESIZER

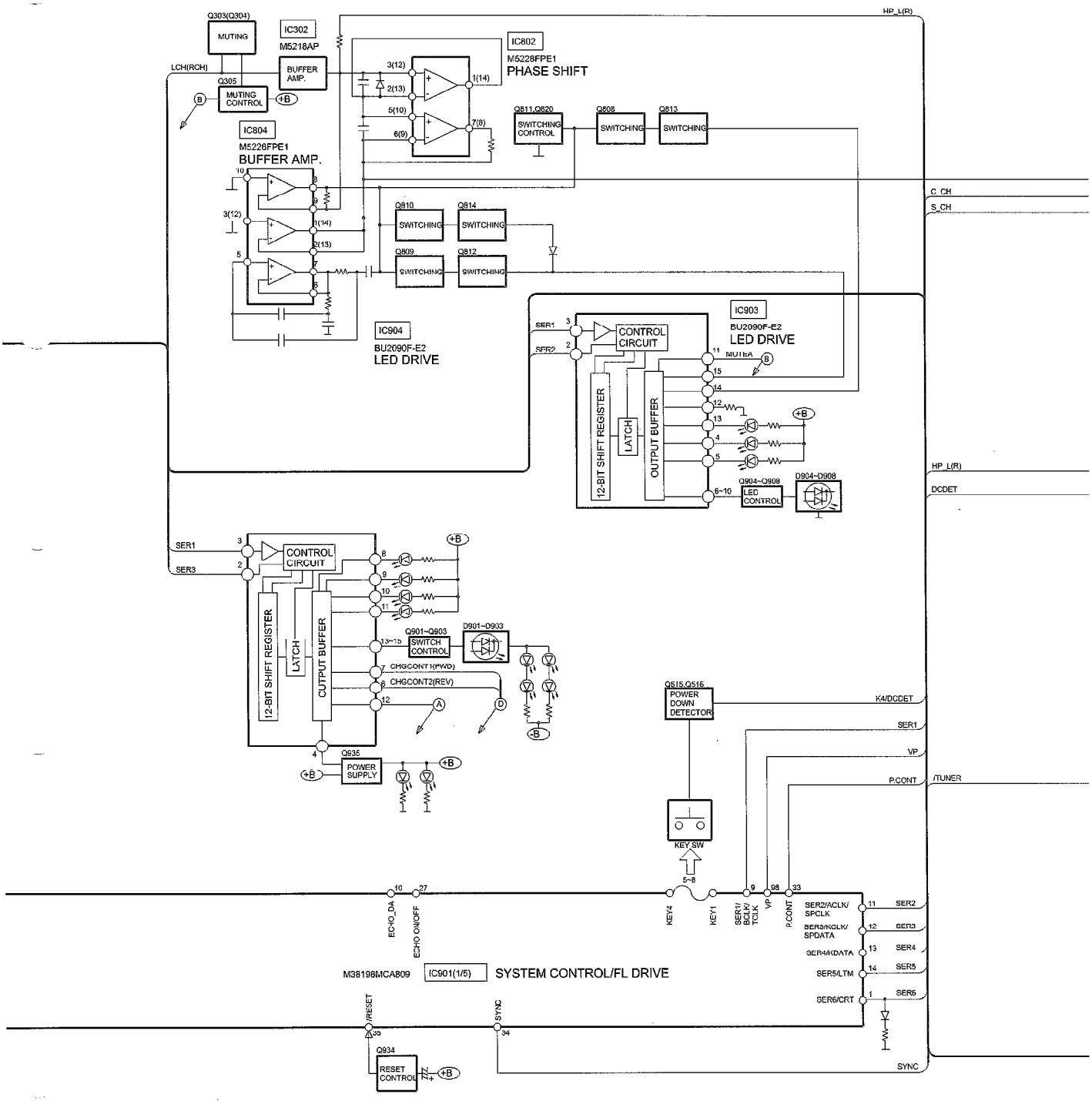

S1 (STOCKER POSITION DET.)
S3 (UP POSITION DET.)
S2 (PLAY POSITION DET.)
S4 (TRAY OPEN DET.)
S5 (DICS NUMBER DET.)
MUTE
MUTEA
B
STATUS
SUBQ
SQCLK
BLKCK
/CDRST
REST SW
ST
SD
A
CE/MLD
DI/MDATA
CL/MCLK
DO
VT
+B
28
25
26
97
MLD/PLLCE
MDATA/PLLDATA
MCLK/PLLCLK
DO IN
32
96
29
18
30
20
22
19
17
16
SD IN
STEREO IN
REST SW
CD RST
BLKCK
SQCK
SUBQ
STATUS
CHNGCR SW2
CHNGCR SW1
IC1
BA6418N
MOTOR DRIVE
LOADING MOTOR
M
9
7
2
5
8
6
+B
3
1
CHGCONT2(REV)
CHGCONT1(FWD)
D
M38198MCA809
IC901(1/5)
SYSTEM CONTROL/FL DRIVE

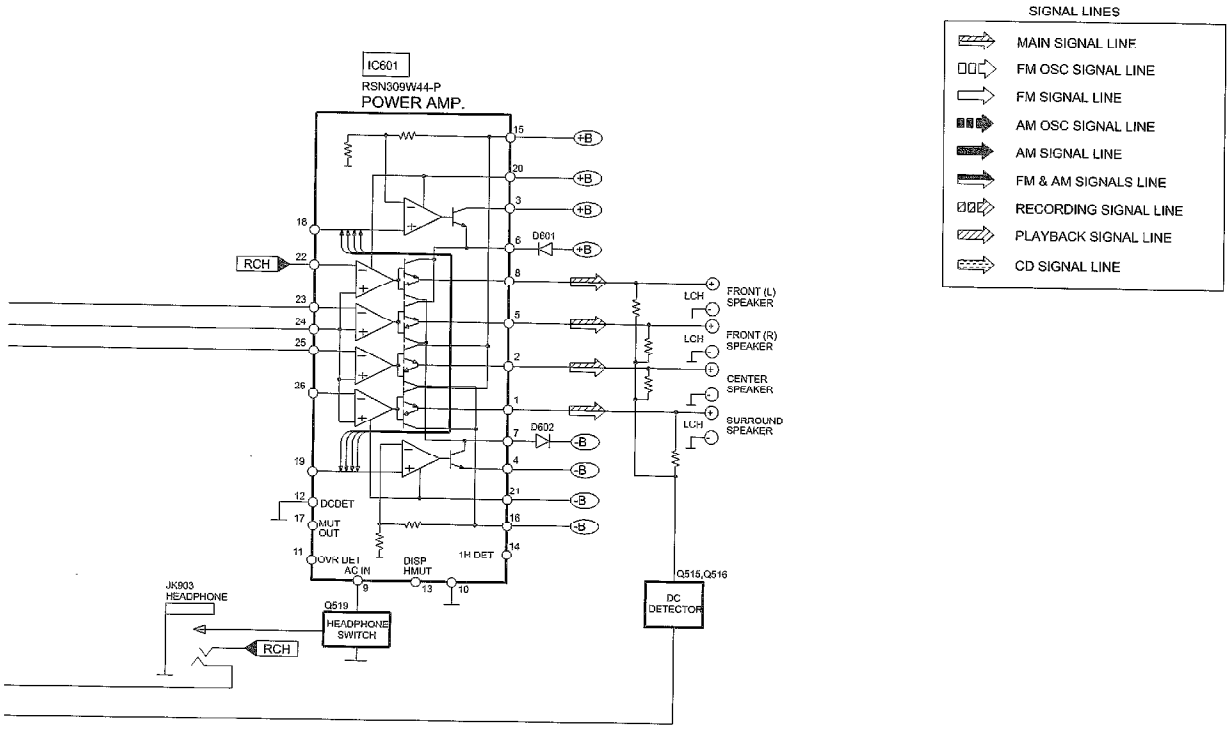

IC101(1/2)
M61167BFP-TB
P.B. EQ /TPS AMP
IC104
BU4066BCF-E2
DECK 1/2 SELECTOR
(P.B GAIN ADJ.)
VR101 (VR102)
VR103 (VR104)
(DECK 1) P.B. HEAD
(DECK 2) R/P HEAD
LCH
Q103(Q104)
R/P SELECT
Q101(Q102)
R/P SELECT
CR NETWORK
TPS
Q117
MUTING DRIVE
Q115(Q116)
Q218
IC101(1/2)
M51187BFP-TB
REC AMP/ALC
SW
ALC
AGC
OFF
IC102
BA7755A
R/P SELECT
CR NETWORK
Q107(Q108)
P.B. EQ/ REC EQ (Cr02/H. SPEED)
(DECK 1) S953 (ATS/CrO2)
(DECK 2) ERASE HEAD
L201
BIAS OSC CONTROL
Q173~Q176
(DECK 2) S973 (ATS/CrO2)
REC;ON/ BEAT PROOF SWITCHING
Q171,Q179
REC
HI
DMT
BP1
BP2
BU2040F-E2
IC105(1/2)
SYSTEM CONTROL
IC971
ON2180RLC
(DECK 2)
IC951
ON2180RLC
(DECK 2)
PHOTO INTERRUPTER
S972 (HALF)
S971 (MODE)
S973 (Cr02)
S974 (F.REC INH)
S975 (R.REC INH)
S952 (HALF)
S951 (MODE)
S953 (Cr02)
Z971
INTERFACE
(Q118~Q121) INTERFACE
D202
SOLENOID DRIVE (DECK 2)
Q206,Q208
SOLENOID
Q230
Q203
MOTOR DRIVE
VR201 (TAPE SPEED ADJ.)
MOTOR (DECK 2)
DECK 2
DECK 1
TPS
M38198MCA809
IC901(1/5)
SYSTEM CONTROL/FL DRIVE
RMT
VCC
VREF
VSS
VSS
J_JOGA
J_JOGB
REGON IN
DECK (ANT)
VOL JOGA
VOL JOGB
Z901 REMOTE SENSOR
VR902 (VOLUMN SOUND EQ)
VR901 (VOLUMN)

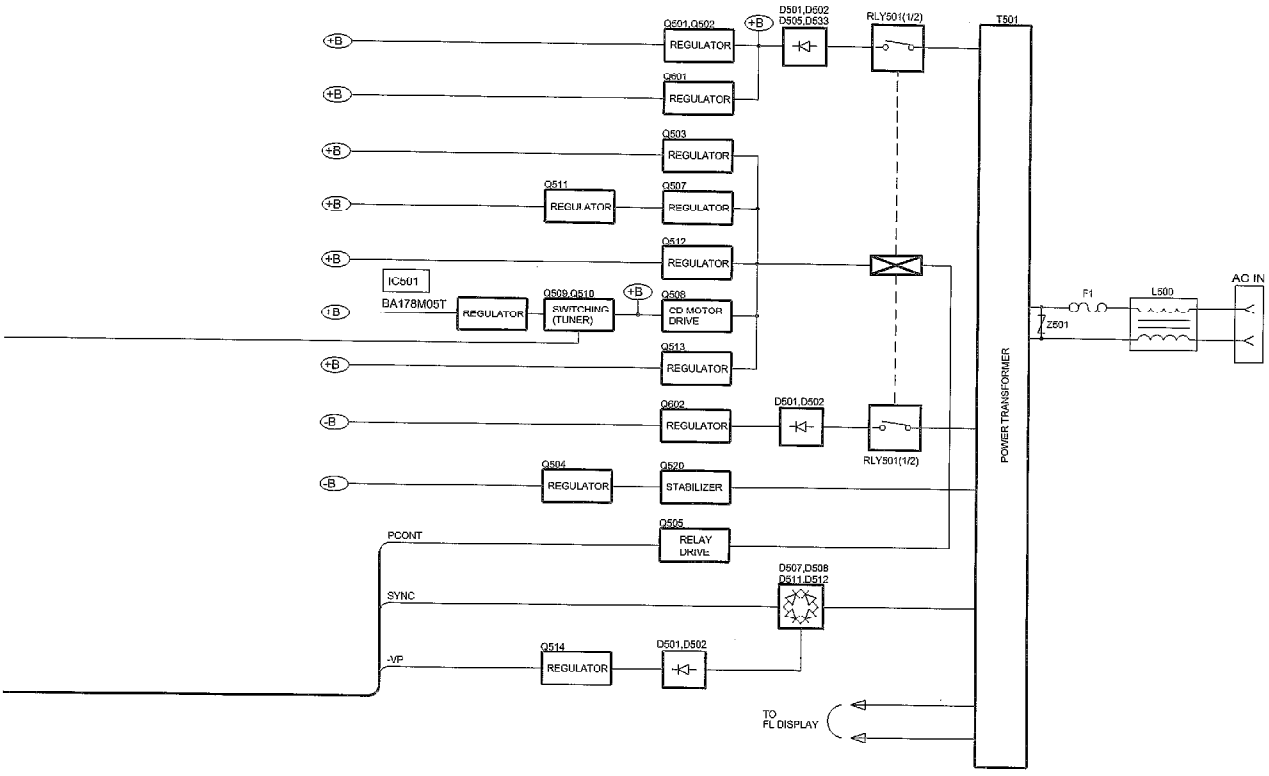

IC301
M62433AFP
DIGITAL SOUND CONTROLLER
IN VIDEO/MD
IN TUNER
IN TAPE PB
IN CD
IN EXTIN
IN PHONO/AUX
CD
AUX
LCH
BUFIN
BUFNF
BUFOUT
KARA PORTA
/TUNER PORTB
DVDD
CLK
DATA
LATCH
DGND
AVDD
LCH(RCH)
/TUNER
SER2
SER3
SER5
VOLIN
GEQOUT
COMOUT TAPE REC
DPL(12)
MIC IN
SWITCHING (PLAY:ON)
Q151(Q152)
BUFFER AMP
Q153(Q154)
IC103
CXA1102M-T4
DOLBY B NR
ATT.1
ATT.2
ATT.3
SC
DET
P=H
OFF=H
TAPE
DOLBY
VCC
GND
BU2040F-E2
IC105(1/2)
SYSTEM CONTROL
CLK
DATA
PI
D951
SOLENOID DRIVE (DECK 1)
Q207,Q209
SOLENOID
IC902
BA3835F-E2
SPECTRUM ANALYZER AMP
BIASC
VREFC
CIN
RREF
AIN
VCC
GRD
TEST
A
B
C
AOUT
D980
D979
D978
SPE CONT A
SPE CONT B
SPE CONT C
SPEANA INPUT
SER7/MKCLK
/SER2/MKDATA
M38198MCA809
IC901(1/5)
SYSTEM CONTROL/FL DRIVE
MBP2
MBP1
XOUT
XIN
XCOUT
XCIN
X901
X902
XTAL CONTROL
Q932,Q933
GRD13
GRD1
REG2
REG1
Q924,Q927,
Q925,Q930
FL DRIVE
FL DISPLAY
FL901
FROM POWER TRANSFORMER




M38198MCA809 IC901(1/5) SYSTEM CONTROL/FL DRIVE


Q303(Q304)
MUTING
IC302
M5218AP
BUFFER AMP.
LCH(RCH)
Q305
MUTING CONTROL
+B
IC802
M5228FPE1
PHASE SHIFT
3(12)
2(13)
1(14)
5(10)
6(9)
7(8)
Q811,Q820
SWITCHING CONTROL
Q808
SWITCHING
Q813
SWITCHING
IC804
M5228FPE1
BUFFER AMP.
Q810
SWITCHING
Q814
SWITCHING
Q809
SWITCHING
Q812
SWITCHING
IC904
BU2090F-E2
LED DRIVE
IC903
BU2090F-E2
LED DRIVE
SER1
SER2
CONTROL CIRCUIT
MUTE
12-BIT SHIFT REGISTER
LATCH
OUTPUT BUFFER
Q904~Q908
LED CONTROL
D904~D908
SER3
Q901~Q903
SWITCH CONTROL
D901~D903
CHGCONT1(FWD)
CHGCONT2(REV)
Q935
POWER SUPPLY
Q515,Q516
POWER DOWN DETECTOR
KEY_SW
HP_L(R)
C_CH
S_CH
DCDET
K4/DCDET
VP
P.CONT
/TUNER
ECHO_DA
ECHO ON/OFF
KEY4
KEY1
SER1/ BCLK/ TCLK
SER2/ACLK/ SPCLK
SER3/KCLK/ SPDATA
SER4/KDATA
SER5/LTM
SER6/CRT
SER2
SER3
SER4
SER5
SER6
M38198MCA809
IC901(1/5)
SYSTEM CONTROL/FL DRIVE
/RESET
SYNC
Q934
RESET CONTROL

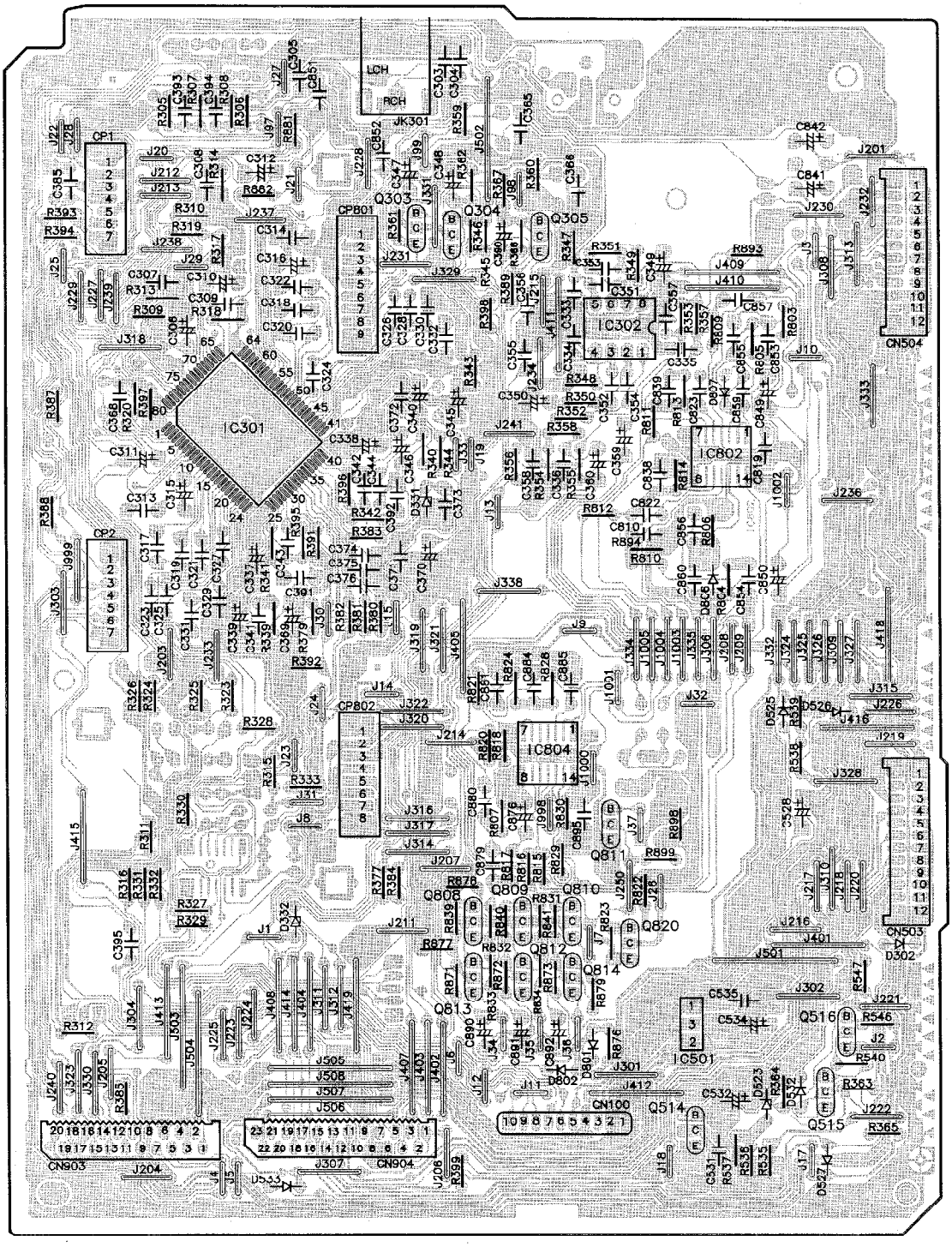

SIGNAL LINES
MAIN SIGNAL LINE
FM OSC SIGNAL LINE
FM SIGNAL LINE
AM OSC SIGNAL LINE
AM SIGNAL LINE
FM & AM SIGNALS LINE
RECORDING SIGNAL LINE
PLAYBACK SIGNAL LINE
CD SIGNAL LINE
IC601
RSN309W44-P
POWER AMP.
RCH
DCDET
MUT OUT
OVR DET
AC IN
DISP MUT
1H DET
D601
D602
FRONT (L) SPEAKER
FRONT (R) SPEAKER
CENTER SPEAKER
SURROUND SPEAKER
LCH
JK803
HEADPHONE
Q519
HEADPHONE SWITCH
Q515,Q516
DC DETECTOR


Q501,Q502
REGULATOR
D501,D502 D505,D533
RLY501(1/2)
T501
Q601
Q503
Q511
Q507
Q512
IC601
BA178M05T
Q509,Q510
SWITCHING (TUNER)
Q508
CD MOTOR DRIVE
Q513
Q602
D501,D502
Q504
Q520
STABILIZER
Q505
RELAY DRIVE
PCONT
SYNC
-VP
D507,D508 D511,D512
Q514
TO FL DISPLAY
POWER TRANSFORMER
F1
L500
Z601
AC IN

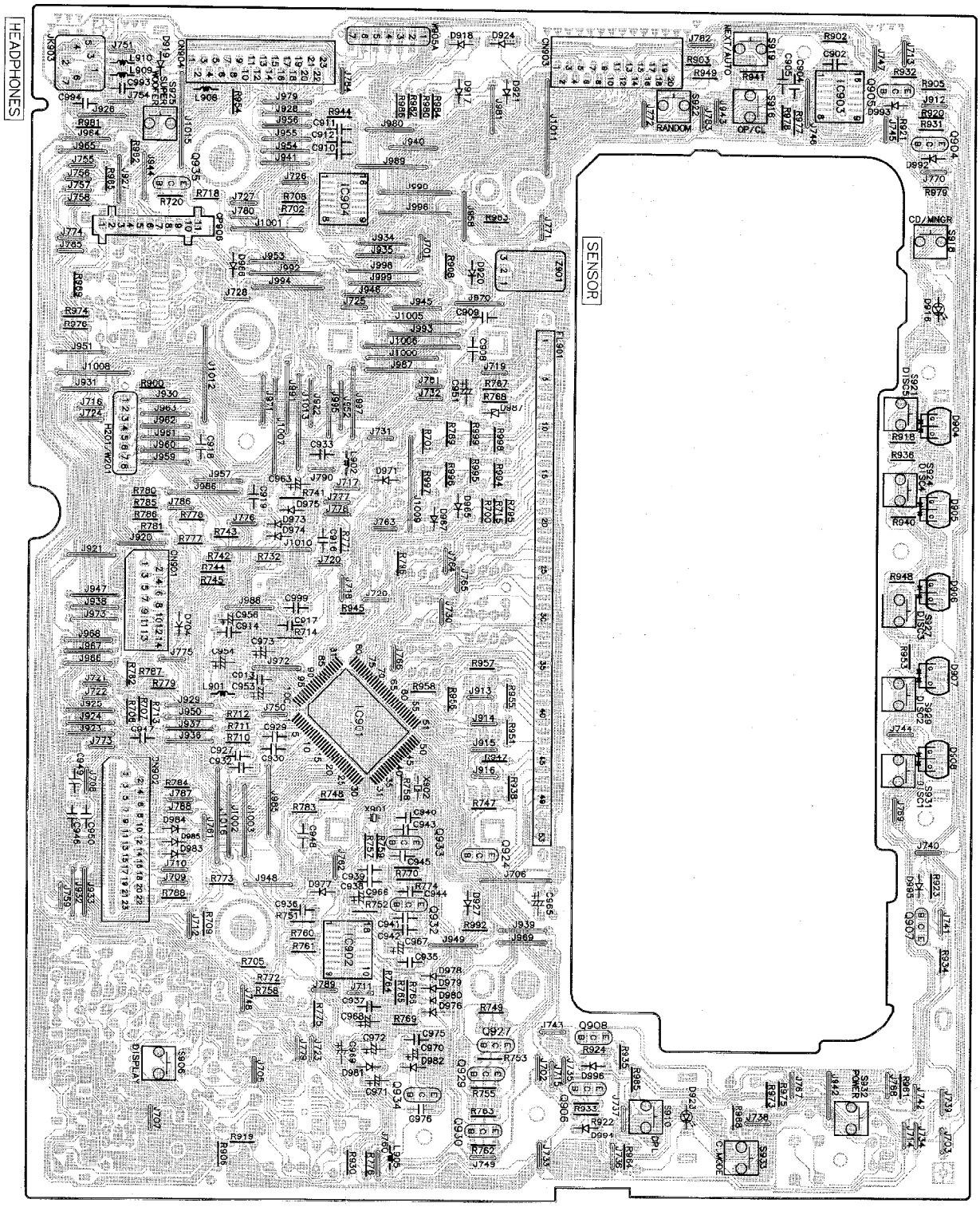
# ■ Printed Circuit Board

## B MAIN P.C.B. (REP2614H)

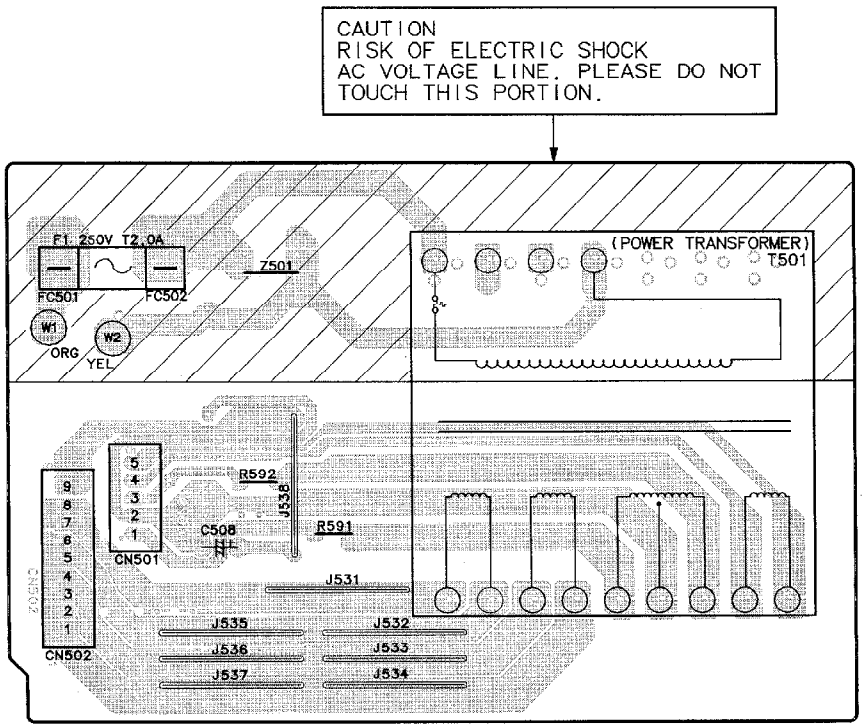
AUX



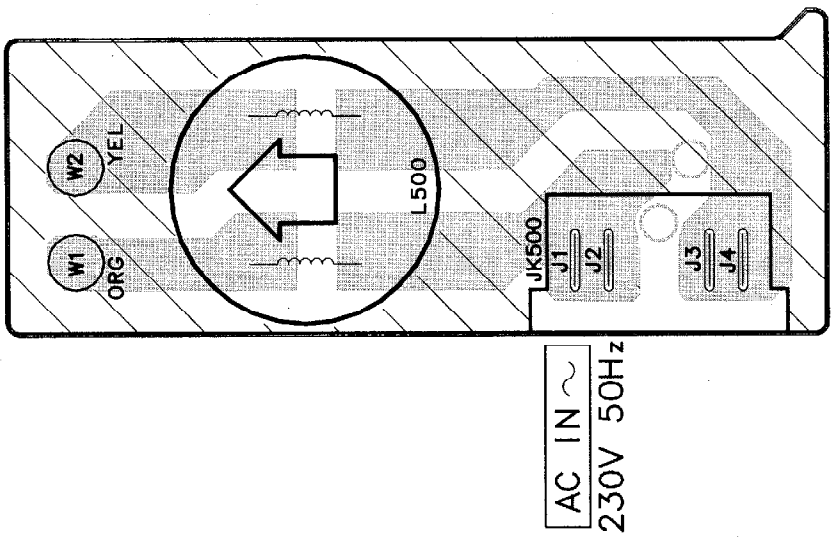
## G PANEL P.C.B. (REP2581M)



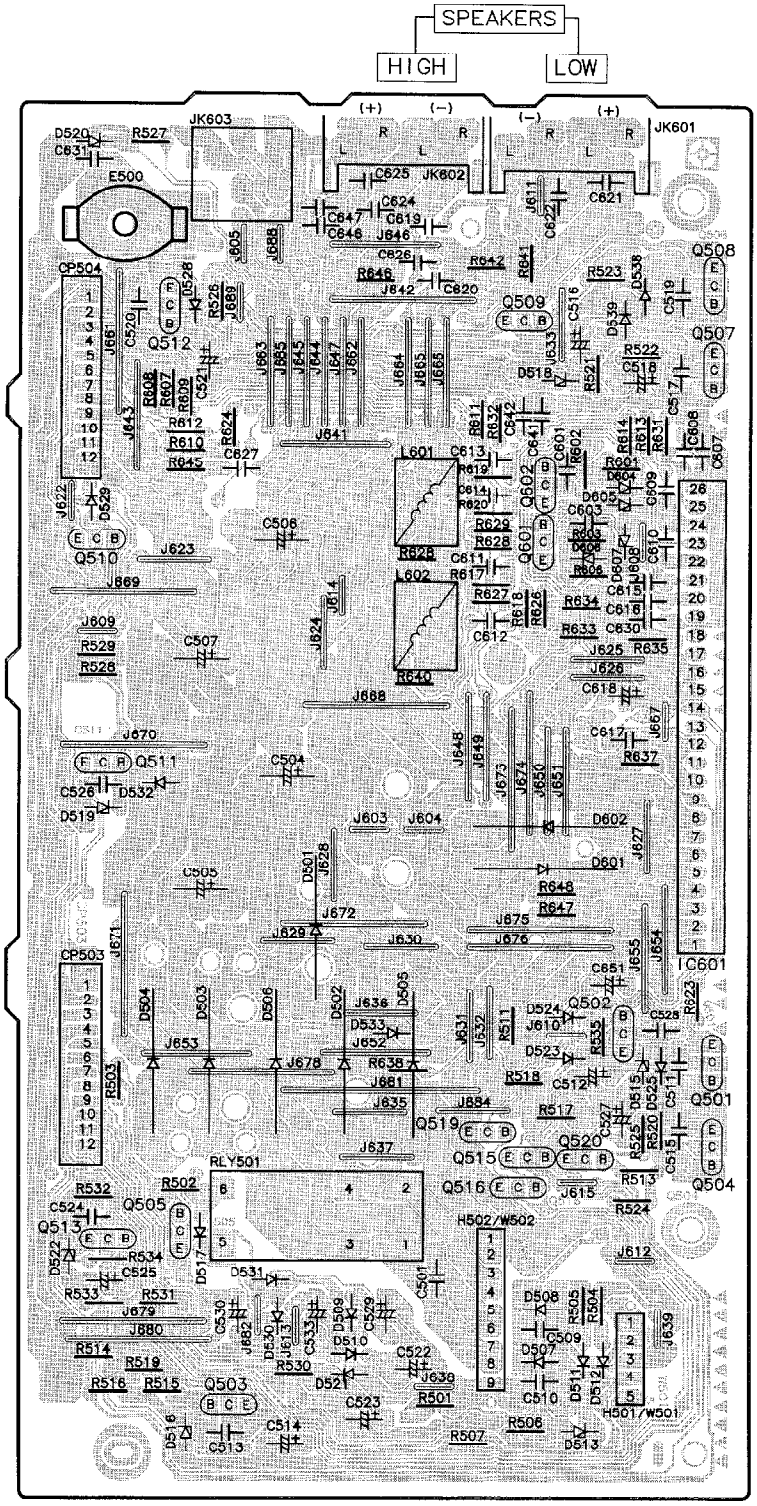
## F TRANSFORMER P.C.B. (REP2583T)



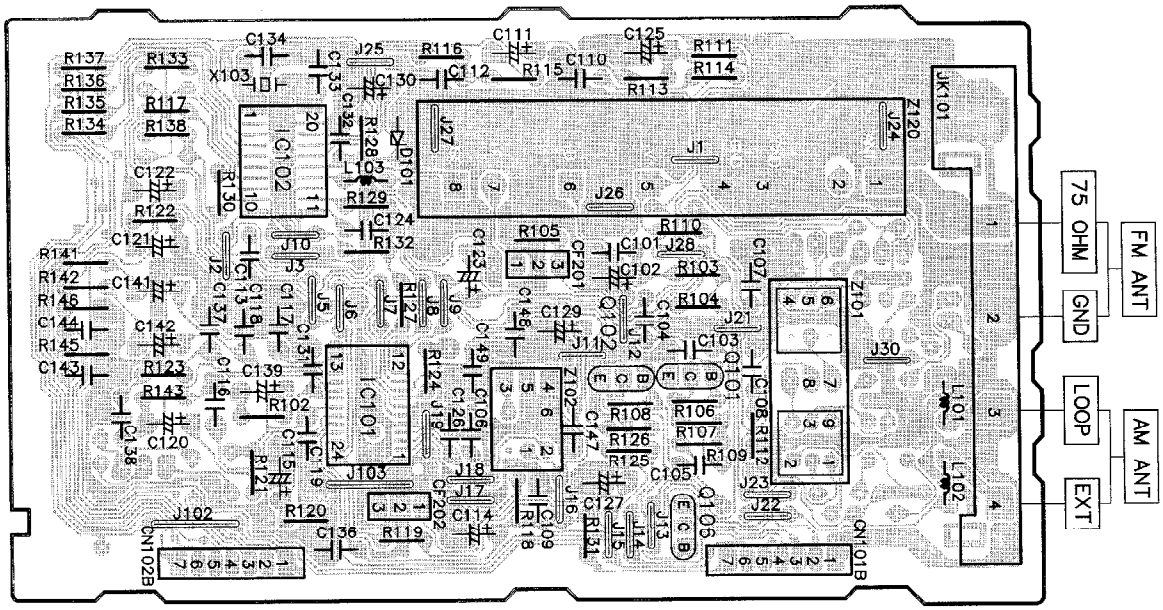

## P AC IN P.C.B. (REP2583T)



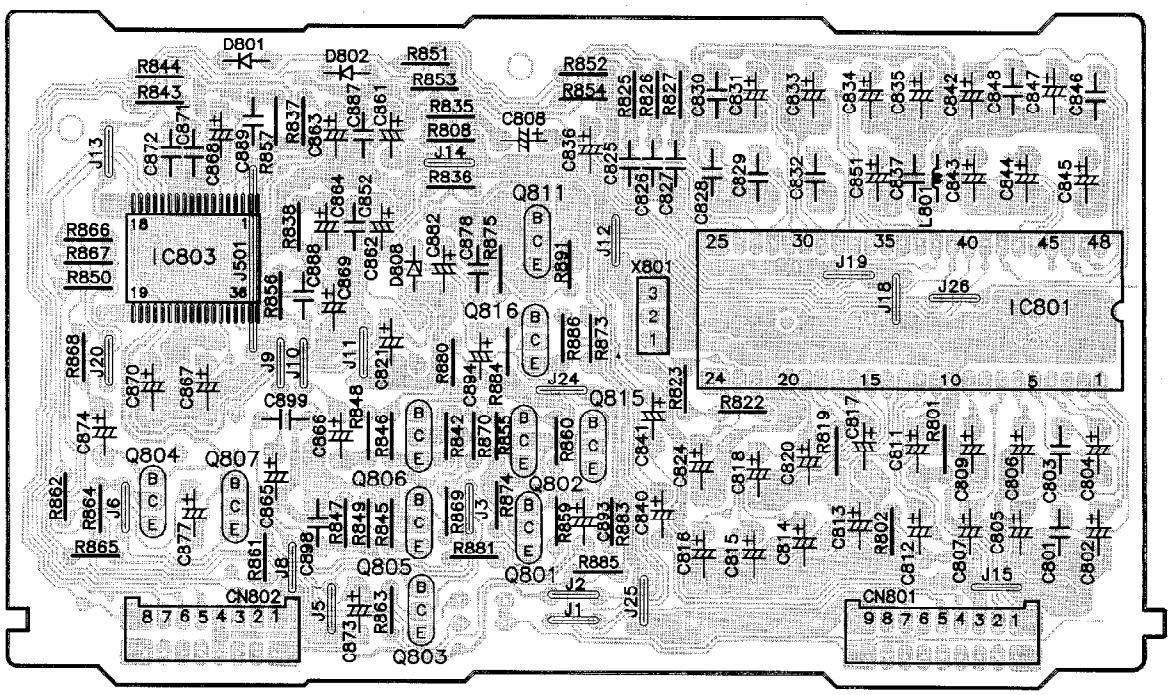
## O POWER P.C.B. (REP2624G)



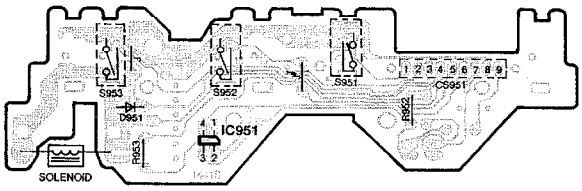
## N TUNER P.C.B. (REP2592C)



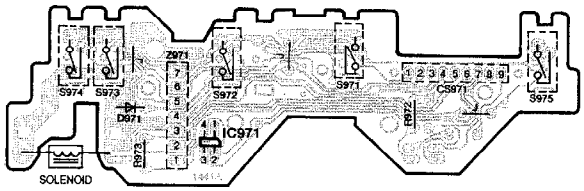

## S PRO LOGIC P.C.B. (REP2658A)



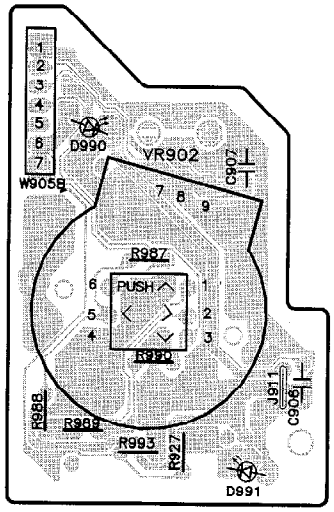
## M MECHANISM (DECK 1) P.C.B.(REPX0108A)



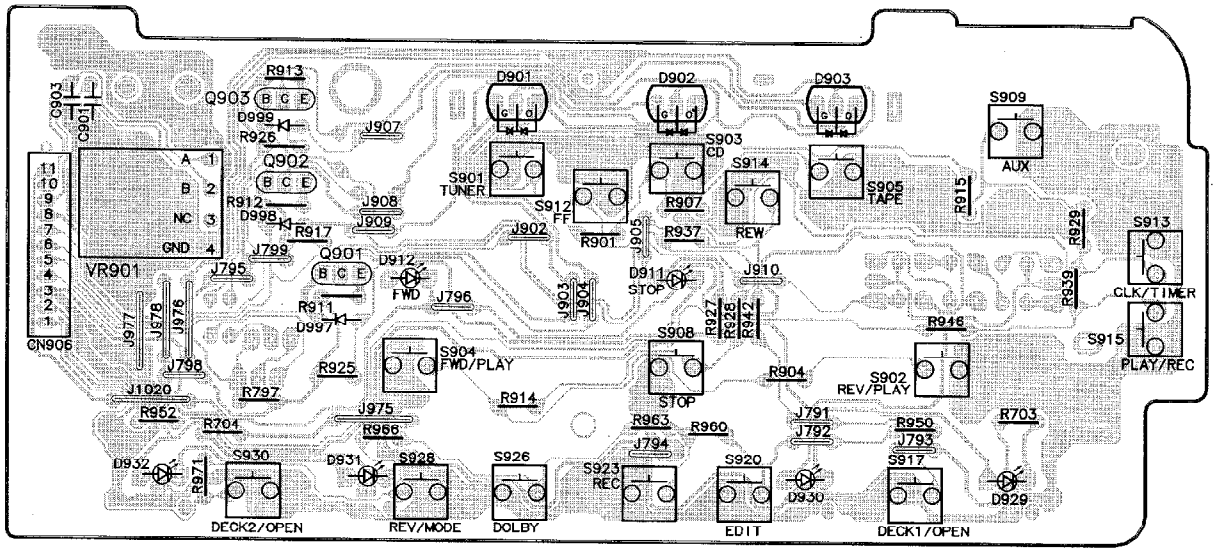

## L MECHANISM (DECK 2) P.C.B.(REPX0108)



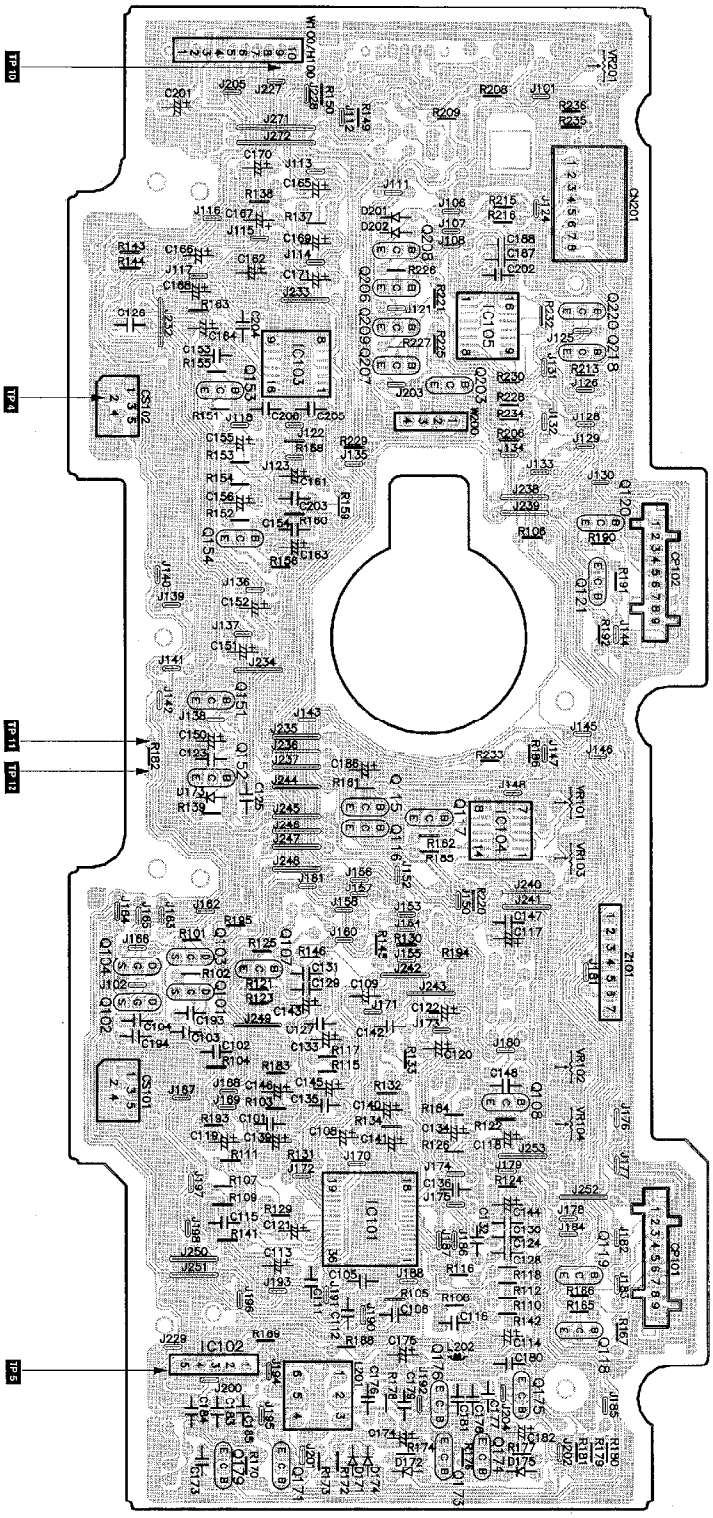

## D JOG P.C.B. (REP2581M)



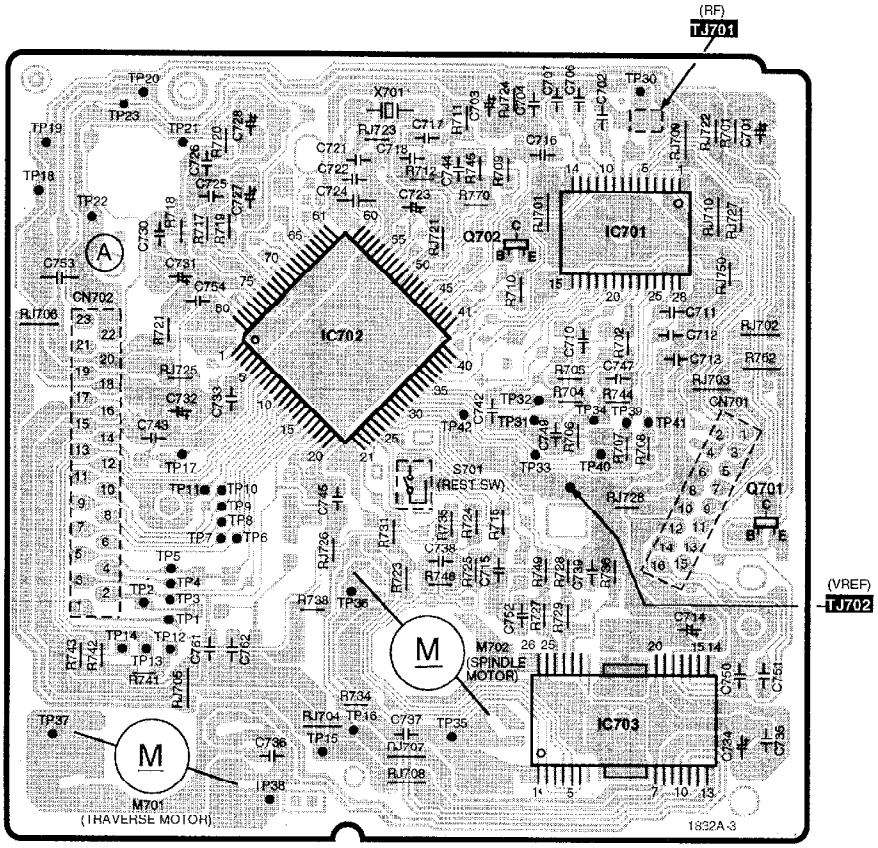

## E OPERATION P.C.B. (REP2581M)



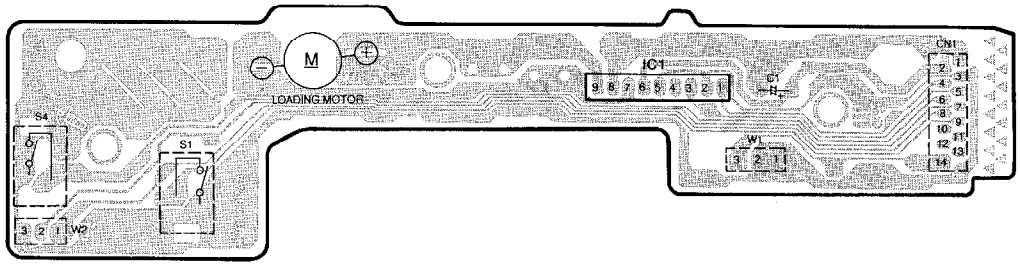
## C DECK P.C.B. (REP2200Q)



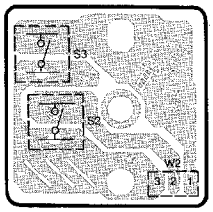
## A SERVO P.C.B. (REPX0144)



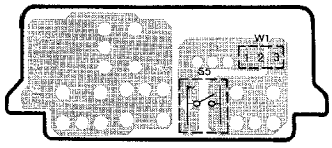

## K LOADING MOTOR P.C.B. (REP2182A-N)



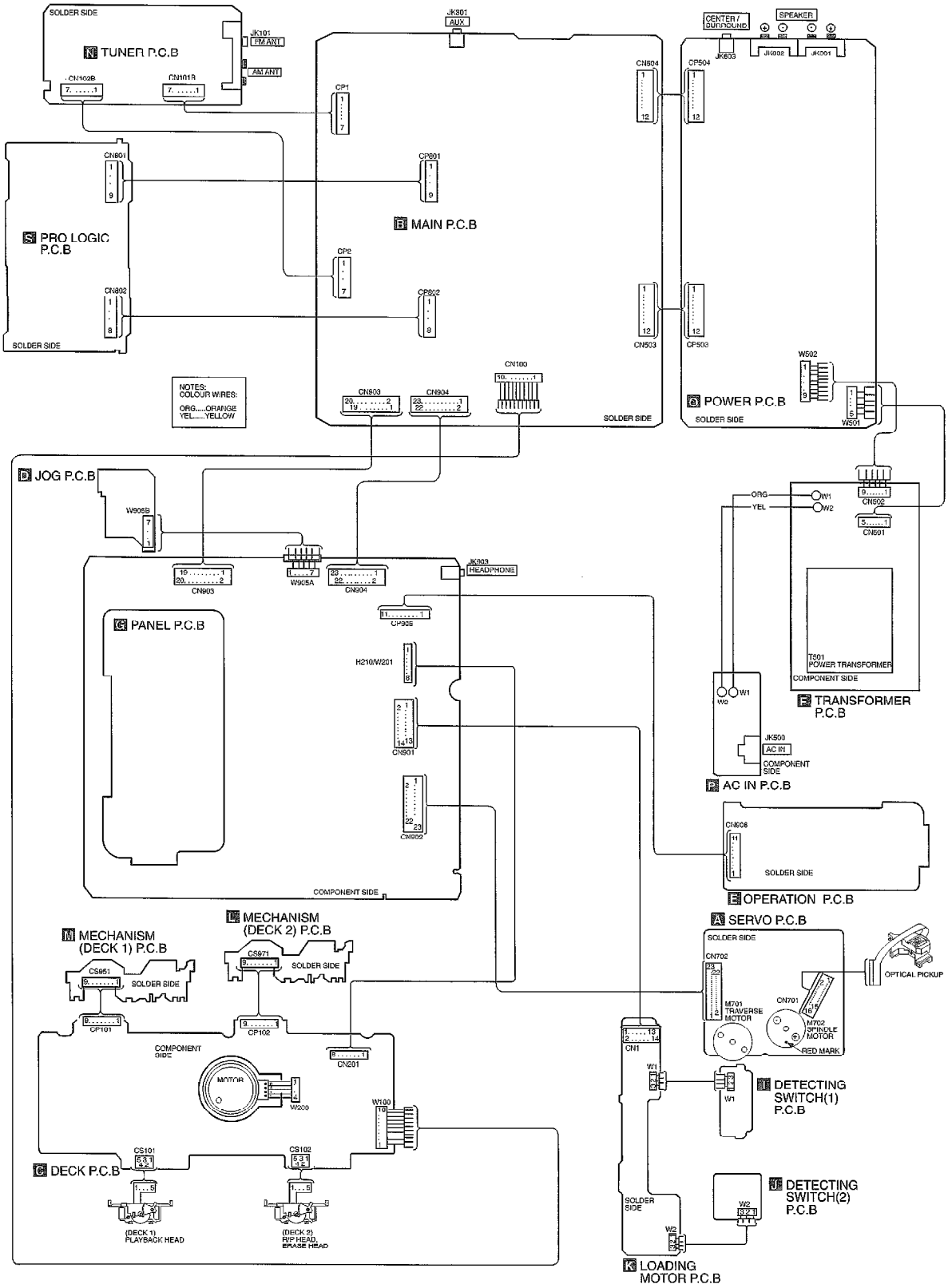

## J DETECTING SWITCH (2) P.C.B. (REP2182A-N)



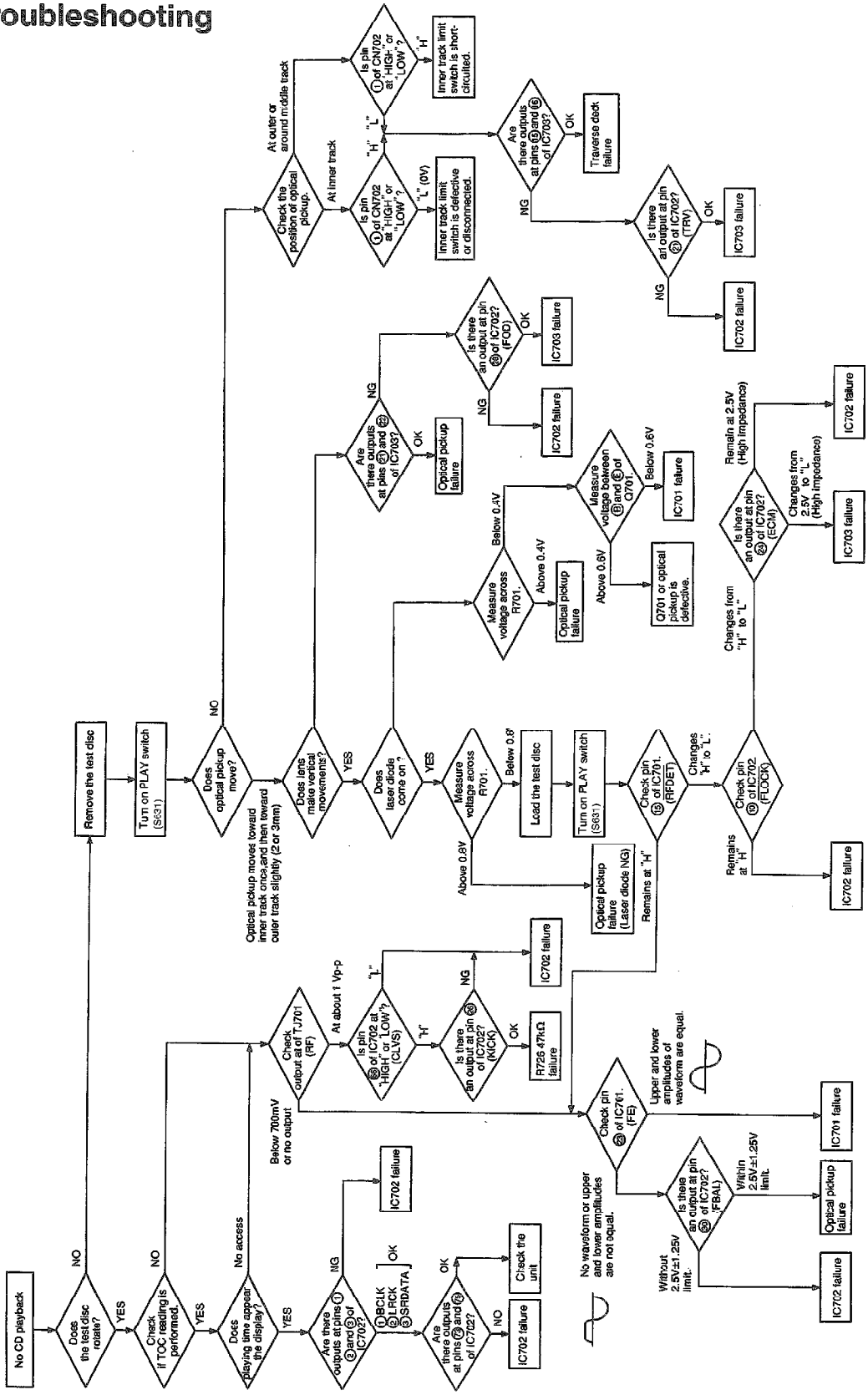

## I DETECTING SWITCH (1) P.C.B. (REP2182A-N)



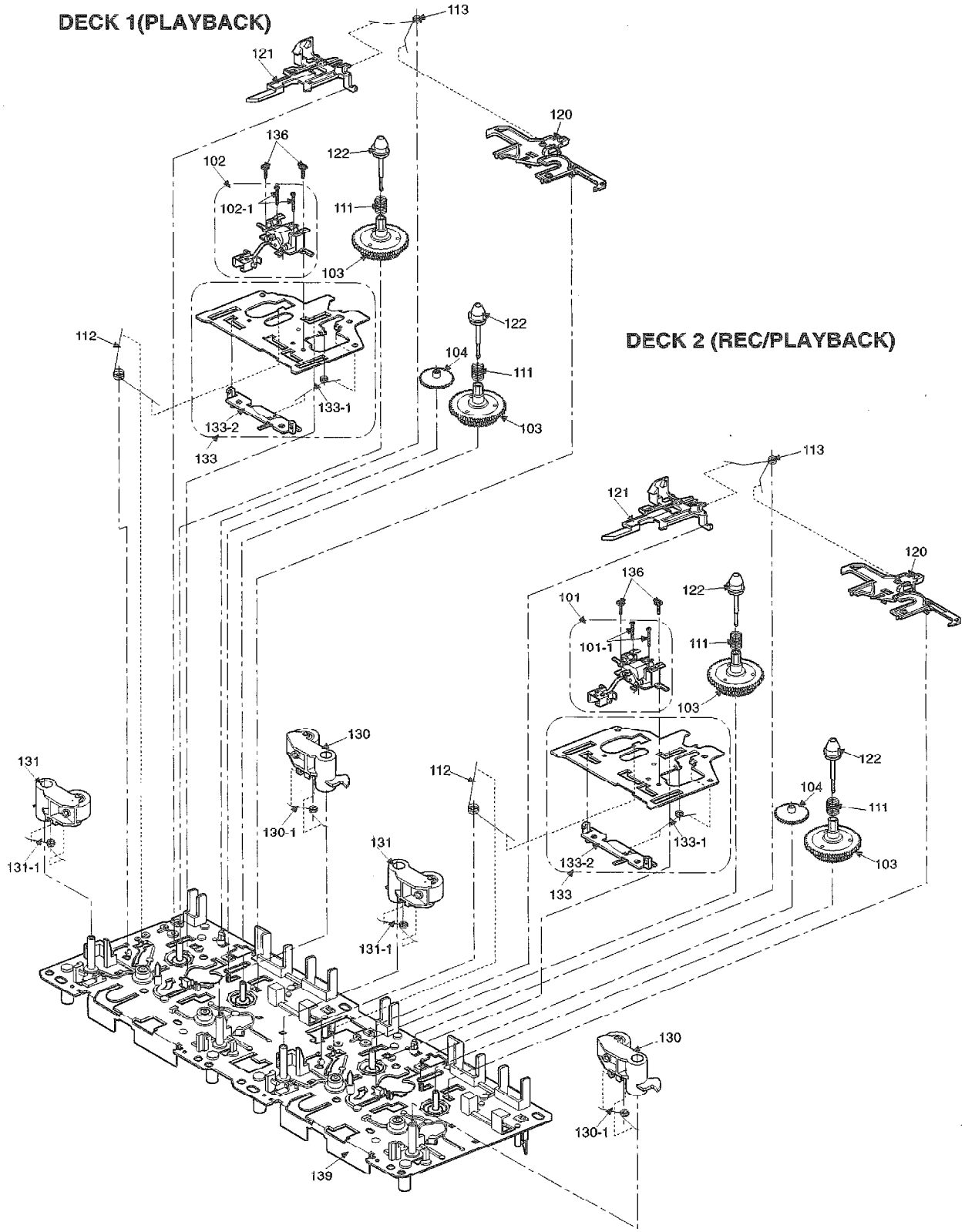
# Wiring Connection Diagram

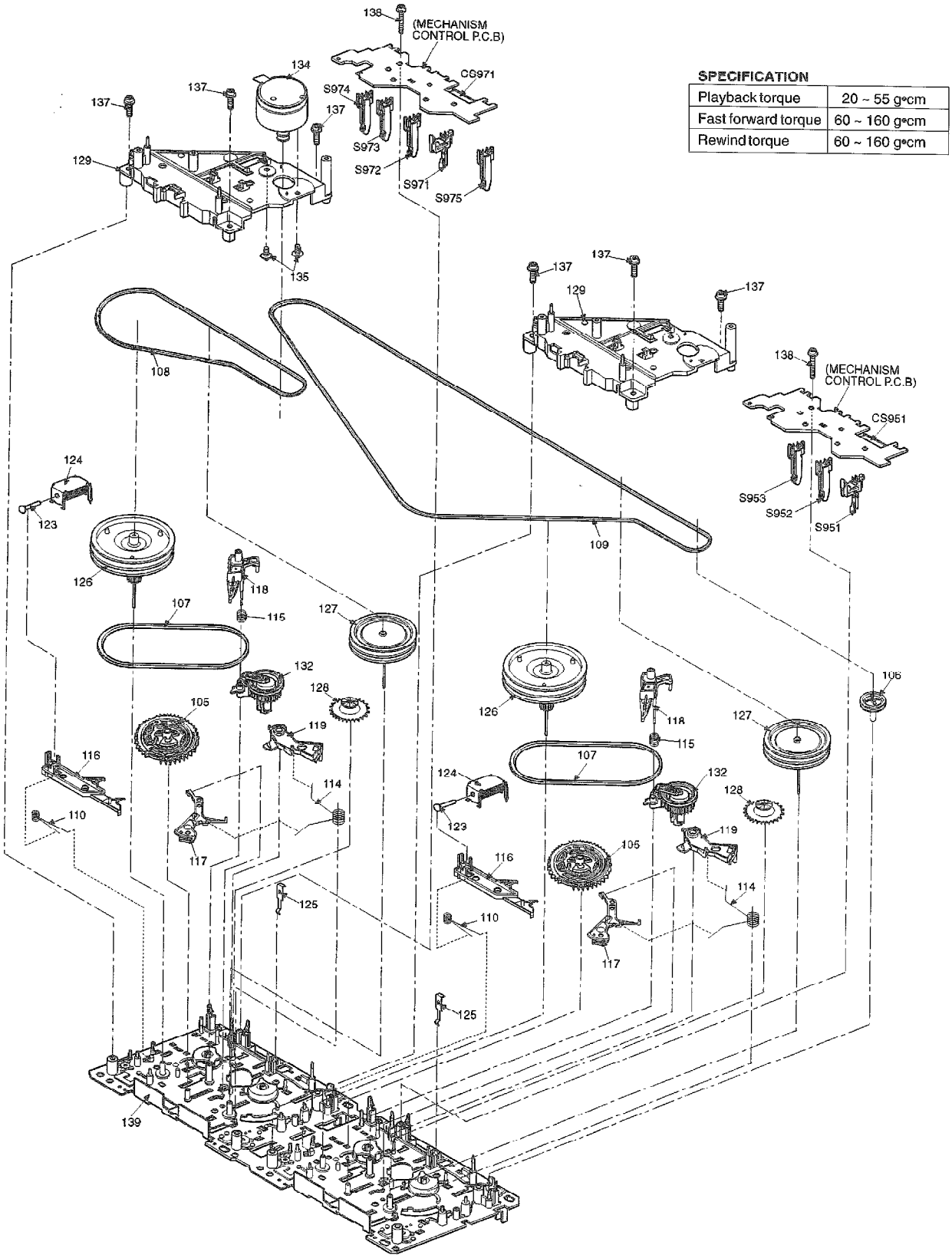


# ■ Troubleshooting


No CD playback
Does the test disc rotate?
NO
YES
Remove the test disc
Check if TOC reading is performed.
NO
YES
Turn on PLAY switch (S631)
Does playing time appear the display?
No access
YES
Does optical pickup move?
NO
Optical pickup moves toward inner track once,and then toward outer track slightly (2or 3mm)
Are there outputs at pins ① and ③ of IC702?
NG
①BCLK ②LRCK ③SRDATA
OK
IC702 failure
Does lens make vertical movement?
YES
Are there outputs at pins ⑳ and ㉒ of IC7037
NG
OK
Optical pickup failure
Does laser diode come on?
YES
Measure voltage across R701.
Below 0.4V
Measure voltage between ⑧ and ⑨ of Q701
Below 0.6V
IC701 failure
Above 0.6V
Q701 or optical pickup is defective.
Above 0.4V
Optical pickup failure
Below 0.8
Load the test disc
Turn on PLAY switch (S631)
Check pin ⑮ of IC701. (RFDET)
Changes "H" to "L".
Check pin ⑩ of IC702 (FLOCK)
Remains at "H"
IC702 failure
Changes from "H" to "L"
Is there an output at pin ㉓ of IC702? (ECM)
Remain at 2.5V (High impedance)
IC702 failure
Changes from 2.5V to "L" (High impedance)
IC703 failure
Above 0.8V
Optical pickup failure (Laser diode NG)
Remains at "H"
Check output at IC701 (RF)
At about 1 Vp-p
Below 700mV or no output
Is pin ㉙ of IC702 at "HIGH" or "LOW"? (CLVS)
"H"
"L"
Is there an output at pin ㉘ of IC702? (KICK)
NG
OK
R725 47kΩ failure
IC702 failure
Check pin ㉙ of IC701. (FE)
Upper and lower amplitudes of waveform are equal.
No waveform or upper and lower amplitudes are not equal.
Is there an output at pin ㉔ of IC702? (FBAL)
Within 2.5V±1.25V limit.
Without 2.5V±1.25V limit.
Optical pickup failure
IC701 failure
IC702 failure
Check the position of optical pickup.
At outer or around middle track
At inner track
Is pin ① of CN702 at "HIGH" or "LOW"?
"H"
"L" (0V)
Inner track limit switch is short-circuited.
Inner track limit switch is defective or disconnected.
Are there outputs at pins ⑮ and ⑯ of IC703?
OK
Traverse deck failure
NG
Is there an output at pin ㉑ of IC702? (TRV)
OK
IC703 failure
NG
IC702 failure
Is there an output at pin ㉖ of IC702? (FOD)
OK
IC703 failure
NG
IC702 failure

## Mechanism Parts Location (RAA3404)






**SPECIFICATION**

| | |
|---|---|
| Playback torque | 20 ~ 55 g•cm |
| Fast forward torque | 60 ~ 160 g•cm |
| Rewind torque | 60 ~ 160 g•cm |

# Mechanism Parts List

Notes : [M] in Remarks column indicates parts supplied by **MESA**.

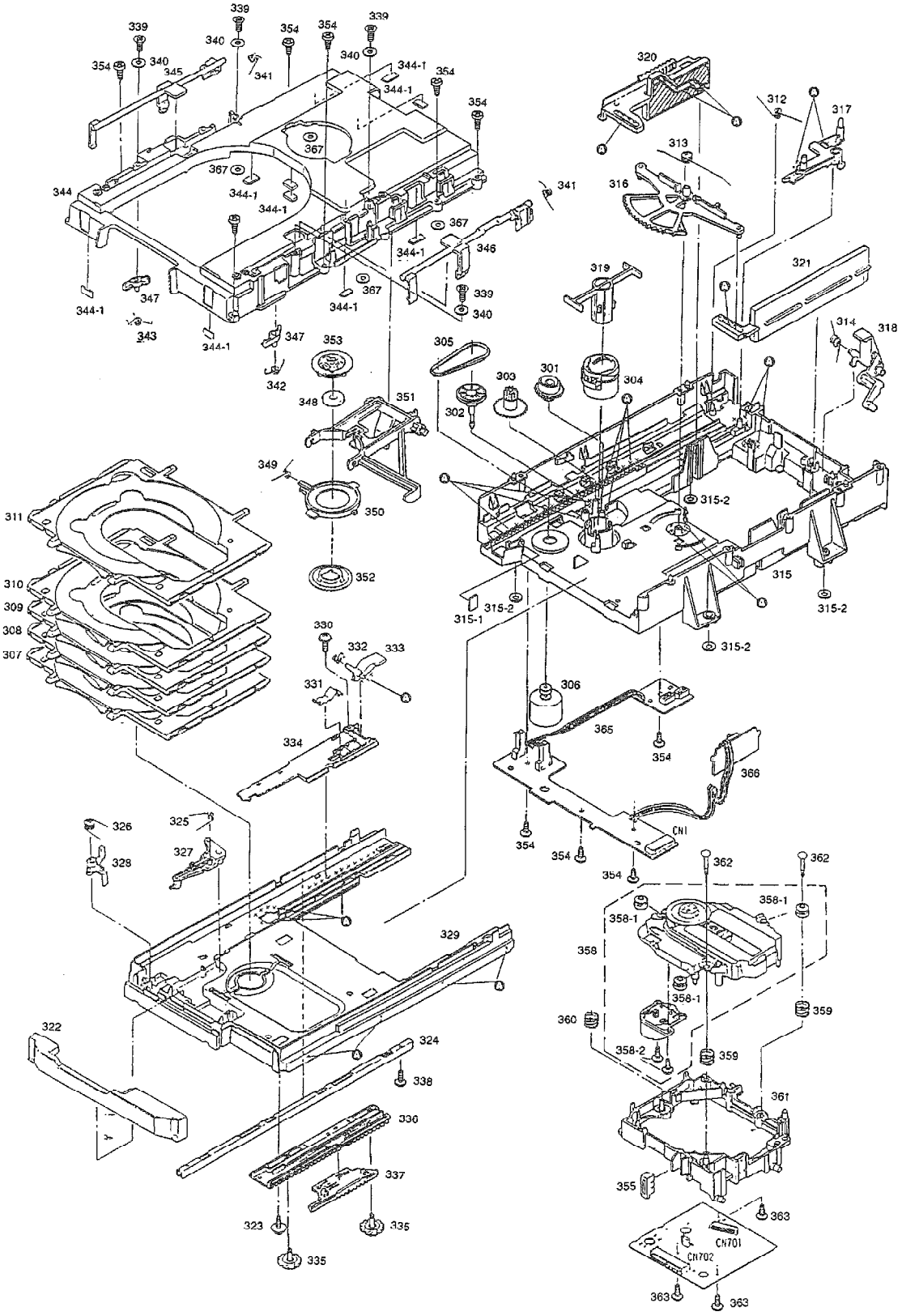
| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | **CASSETTE DECK** | |
| | | | |
| 101 | RED0037 | R/P HEAD BLOCK ASS'Y | [M] |
| 101-1 | RHE5152ZB | SCREW | [M] |
| 102 | RED0038 | P/B HEAD BLOCK ASS'Y | [M] |
| 102-1 | RHE5152ZB | SCREW | [M] |
| 103 | RDC0300 | REEL TABLE BASE | [M] |
| 104 | RDG0301 | GEAR | [M] |
| 105 | RDK0026 | GEAR | [M] |
| 106 | RDR0029 | RELAY PULLY | [M] |
| 107 | RDV0033-1 | BELT | [M] |
| 108 | RDV0034 | BELT | [M] |
| 109 | RDV0035 | BELT | [M] |
| 110 | RUW147ZA | SPRING | [M] |
| 111 | RMB0400 | REEL TABLE SPRING | [M] |
| 112 | RMB0403 | SPRING | [M] |
| 113 | RMB0404 | SPRING | [M] |
| 114 | RMB0406 | SPRING | [M] |
| 115 | RMB0408 | SPRING | [M] |
| 116 | RML0370 | LEVER | [M] |
| 117 | RML0371 | LEVER | [M] |
| 118 | RML0372 | ARM | [M] |
| 119 | RML0374 | LEVER | [M] |
| 120 | RMM0131 | LEVER | [M] |
| 121 | RMM0133 | LEVER | [M] |
| 122 | RMQ0519 | REEL TABLE HEAD | [M] |
| 123 | RMS0398-1 | SHAFT | [M] |
| 124 | RSJ0003 | PLUNGER | [M] |
| 125 | RUS609ZC | SPRING | [M] |
| 126 | RXF0049 | FLYWHEEL ASS'Y | [M] |
| 127 | RXF0050 | FLYWHEEL ASS'Y | [M] |
| 128 | RXG0040 | GEAR | [M] |
| 129 | RMK0283 | PLATE | [M] |
| 130 | RXL0124 | PINCH ROLLER ASS'Y | [M] |
| 130-1 | RMB0401 | SPRING | [M] |
| 131 | RXL0125 | PINCH ROLLER ASS'Y | [M] |
| 131-1 | RMB0402 | SPRING | [M] |
| 132 | RXL0126 | GEAR | [M] |
| 133 | RXQ0412 | ROD | [M] |
| 133-1 | RMB0405 | SPRING | [M] |
| 133-2 | RMM0132 | ROD | [M] |
| 134 | REM0055 | MOTOR ASS'Y | [M] |
| 135 | RHD26022 | SCREW | [M] |
| 136 | XTW2+5L | SCREW | [M] |
| 137 | XTW26+10S | SCREW | [M] |
| 138 | XYC2+JF17 | SCREW | [M] |
| 139 | RFKJXED70-K | CHASSIS ASS'Y | [M] |

# Loading Mechanism Parts List

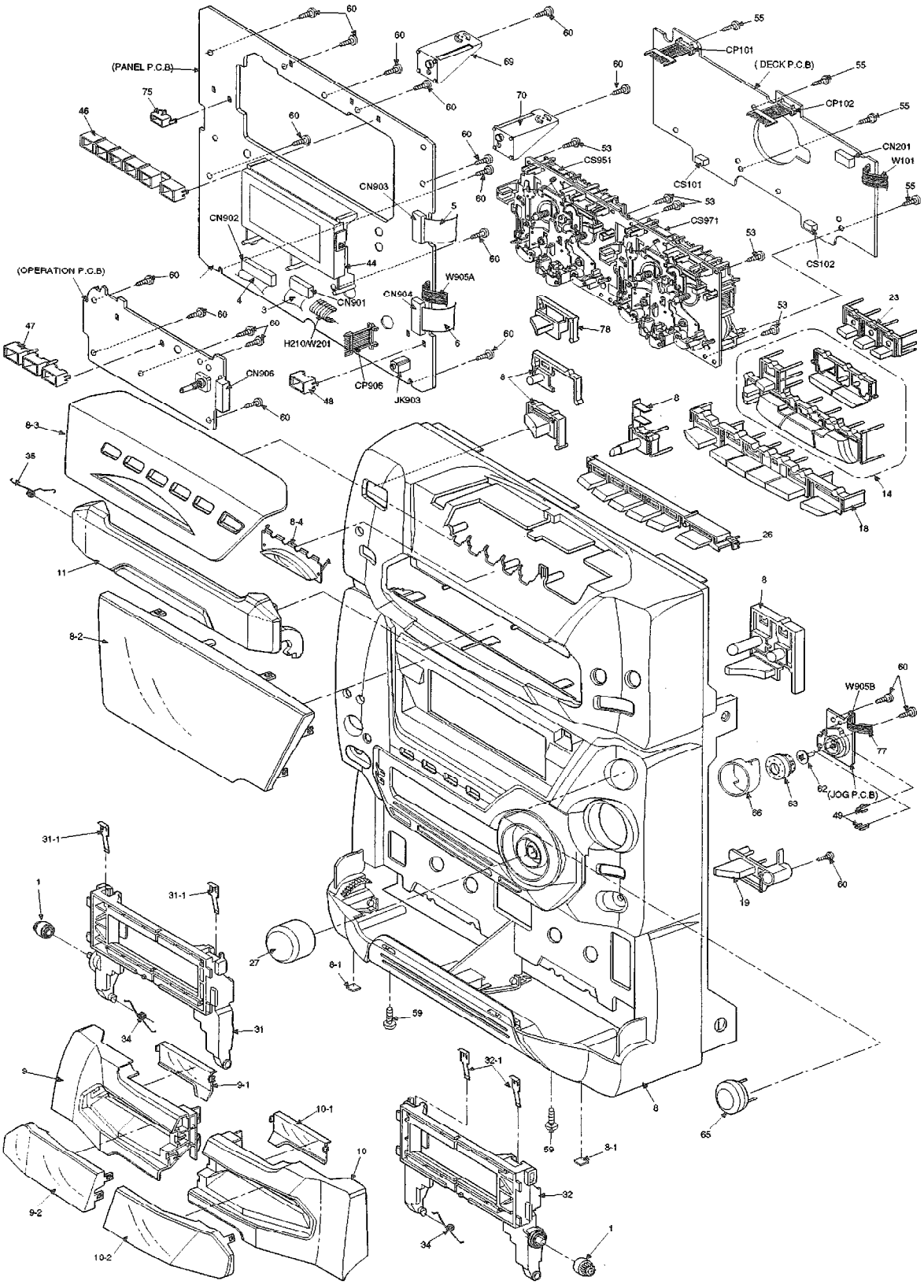
Notes : [M] in Remarks column indicates parts supplied by **MESA**.

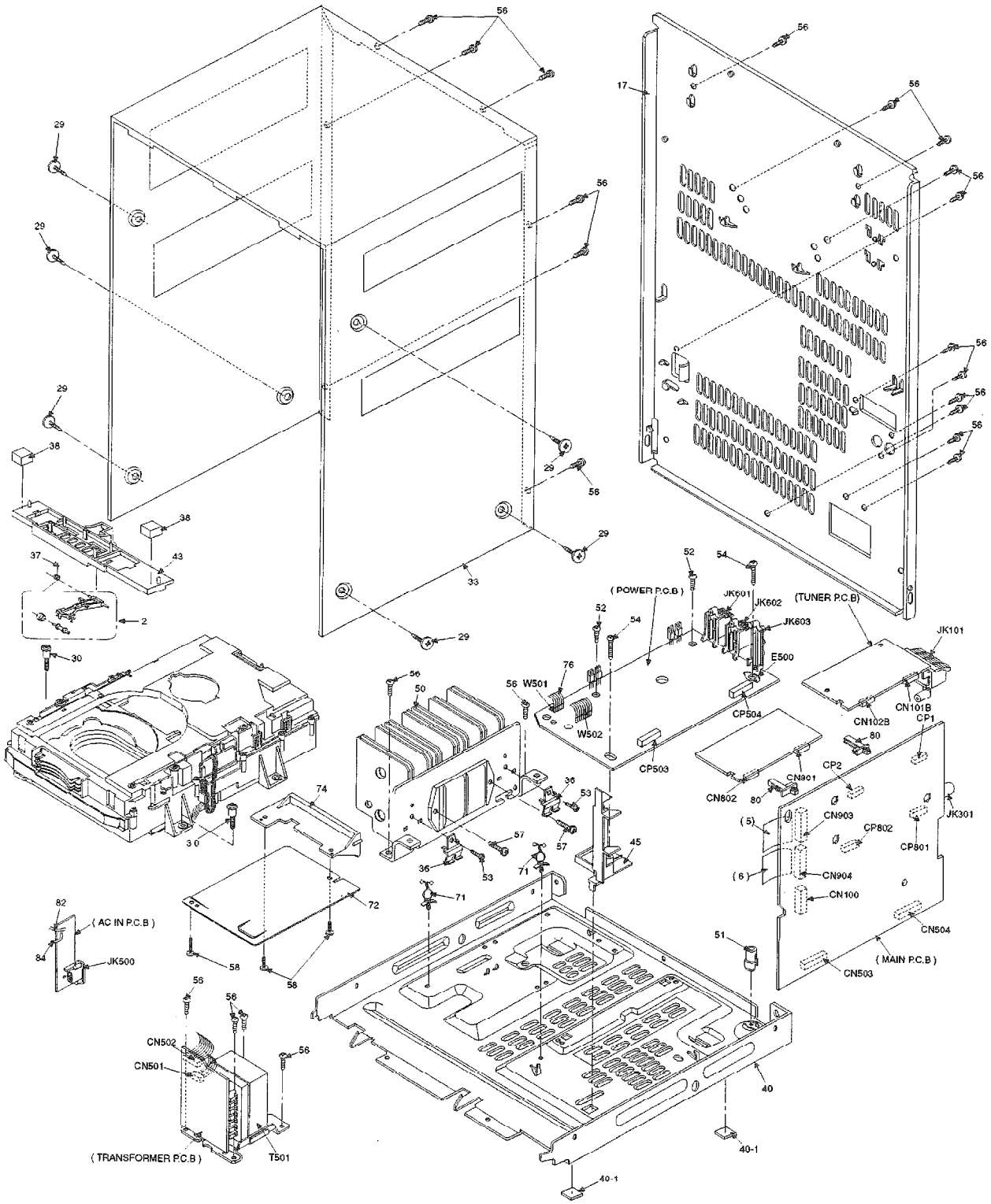
| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | **TRAVERSE DECK** | |
| | | | |
| 301 | RDG0309 | RELAY GEAR | [M] |
| 302 | RDG0310 | PULLEY GEAR | [M] |
| 303 | RDG0311 | DRIVE GEAR | [M] |
| 304 | RDG0313 | UP/DOWN GEAR LEVER | [M] |
| 305 | RDV0036 | BELT | [M] |
| 306 | RFKPDS790PK1 | MOTOR ASS'Y | [M] |
| 307 | RGQ0170-K | TRAY 1 | [M] |
| 308 | RGQ0171-K | TRAY 2 | [M] |
| 309 | RGQ0172-K | TRAY 3 | [M] |
| 310 | RGQ0173-K | TRAY 4 | [M] |
| 311 | RGQ0174-K | TRAY 5 | [M] |
| 312 | RME0170 | LOCK LEVER SPRING | [M] |
| 313 | RME0179 | ASSIST SPRING | [M] |
| 314 | RME0180 | TRAY HOLDER SPRING | [M] |
| 315 | RFKNACH430GC | MECHA BASE ASS'Y | [M] |
| 315-1 | RMF0221 | FELT | [M] |
| 315-2 | RMG0402-K | RUBBER WASHER | [M] |
| 316 | RML0379 | CHANGE LEVER | [M] |
| 317 | RML0380 | LOCK LEVER | [M] |
| 318 | RML0383 | TRAY HOLDING LEVER | [M] |
| 319 | RML0385 | UP/DOWN LEVER | [M] |
| 320 | RMM0139 | SLIDE PLATE LEVER (1) | [M] |
| 321 | RMM0141 | SLIDE PLATE LEVER (2) | [M] |
| 322 | RGQ0175-K | TRAY ORNAMENT | [M] |
| 323 | RHD20010 | SCREW DRIVE RACK | [M] |
| 324 | RMA0868 | SUPPORT ANGLE | [M] |
| 325 | RME0171 | BASE LOCK LEVER SP | [M] |
| 326 | RME0172 | CARRIER LOCK LEVER S | [M] |
| 327 | RML0377 | BASE LOCK LEVER | [M] |
| 328 | RML0378 | CARRIER LOCK LEVER | [M] |
| 329 | RMR0884-K | TRAY BASE | [M] |
| 330 | RHD20009-1 | SCREW CARRIER | [M] |
| 331 | RMC0274 | TRAY FOOK SPRING | [M] |
| 332 | RME0173 | CARRIER ARM SPRING | [M] |
| 333 | RML0376-1 | CARRIER ARM | [M] |
| 334 | RMM0137 | CARRIER LEVER | [M] |
| 335 | RDG0312 | SPEED UP GEAR | [M] |
| 336 | RMM0134 | DRIVE GEAR | [M] |
| 337 | RMM0135 | CUSHION RACK | [M] |
| 338 | XTN2+6F | SCREW SUPPORT ANGLE | [M] |
| 339 | XTS3+8J | SCREW | [M] |
| 340 | XWC4C10 | CUSHION | [M] |
| 341 | RME0178 | HOLDING SPRING | [M] |
| 342 | RME0181 | UP PREVENTION SP (R) | [M] |
| 343 | RME0182 | UP PREVENTION SP (L) | [M] |
| 344 | RFKNACH430GD | MECHA COVER ASS'Y | [M] |
| 344-1 | RMF0221 | FELT | [M] |
| 345 | RML0381 | HOLDING CATCH (1) | [M] |
| 346 | RML0382 | HOLDING CATCH (2) | [M] |
| 347 | RML0384 | UP PREVENTION LEVER | [M] |
| 348 | RHM245ZA | MAGNET | [M] |
| 349 | RME0174 | CLAMP BASE SPRING | [M] |
| 350 | RFKNACH430GE | CLAMP BASE ASS'Y | [M] |
| 351 | RML0388-1 | CLAMP LEVER | [M] |
| 352 | RMR0761-W | MAGNET HOLDER LEVER | [M] |
| 353 | RMR0899-K | FIXED PLATE | [M] |
| 354 | XTB3+10JFZ | SCREW PB, LID | [M] |
| 355 | RMR0975-W | TRAVERSE CAP | [M] |
| 358 | RAE0152Z | TRAVERSE UNIT | [M] |
| 358-1 | SHGD113-1 | FLOATING RUBBER | [M] |
| 358-2 | SNSD38 | SCREW | [M] |
| 359 | RME0109 | FLOATING SPRING (1) | [M] |
| 360 | RME0142 | FLOATING SPRING (2) | [M] |
| 361 | RMK0293 | TRAVERSE CHASSIS | [M] |
| 362 | RMG0120-1 | FIXED PIN | [M] |
| 363 | XTN2+6C | SCREW | [M] |
| 365 | REZ0702 | 3P WIRE KIT | [M] |

# ■ CD Loading Unit Parts Location



## ■ Cabinet Parts Location




56
29
17
38
43
37
2
30
33
52
54
( POWER P.C.B )
JK601
JK602
JK603
(TUNER P.C.B)
JK101
E500
CP504
CP503
CN102B
CN101B
CP1
W501
W502
76
50
74
36
53
57
45
71
72
CN901
CP2
80
CN802
CN903
CP802
CP801
JK301
( 5 )
( 6 )
CN904
CN100
CN504
( MAIN P.C.B )
CN503
51
40
40-1
82
( AC IN P.C.B )
84
JK500
58
CN502
CN501
( TRANSFORMER P.C.B )
T501

# Repalcement Parts List

Notes:
* Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.
When replacing any of these components, he sure to use only manufacturer's specified parts shown in the parts list .
* The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour )
Parts without these indications can be used for all areas.
* [M] Indicates in the Remarks columns indicates parts supplied by **MESA.**
* Warning : This product uses a laser diode. Refer to caution statements on page 3.

ACHTUNG : • Die lasereinheit nicht zerlegen.
• Die lasereinheit darf nur gegen eine vom hertsteller spezifizierte einheit ausgetauscht werden.

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | **CABINET AND CHASSIS** | |
| | | | |
| 1 | RDG0129 | DAMPER GEAR | [M] |
| 2 | RFKNACH34PK | HOLDER ARM ASS'Y | [M] |
| 3 | REEX0025 | 14P FFC | [M] |
| 4 | REE0832 | CR50 TO PANEL | [M] |
| 5 | REE0833 | 20P FFC | [M] |
| 6 | REE0834 | 23P FFC | [M] |
| 8 | RFKGAAK55EES | FRONT PANEL ASS'Y | [M] |
| 8-1 | RKA0059-K | LEG RUBBER | [M] |
| 8-2 | RKW0527-V | FL WINDOW | [M] |
| 8-3 | RGK0959F-K | CHANGER TOP CAB. | [M] |
| 8-4 | RGL0383-Q | CD LIGHTING CHIP | [M] |
| 9 | RFKLAAK45GAS | CASS LID (L) ASS'Y | [M] |
| 9-1 | RKW0528-Q | CASS. WINDOW (L) | [M] |
| 9-2 | RGL0384-Q | CASS. L. PIE (L) | [M] |
| 10 | RFKLAAK45GBS | CASS LID (R) ASS'Y | [M] |
| 10-1 | RKW0529A-Q | CASS. WINDOW (R) | [M] |
| 10-2 | RGL0385-Q | CASS. L. PIE. (R) | [M] |
| 11 | RGK0979-S | CHANGER LID | [M] |
| 14 | RYQ0234A-S | CON. BUTTON ASS'Y | [M] |
| 17 | RGRX0008R-A | REAR PANEL | [M] |
| 18 | RGU1588A-1S | DECK BUTTON | [M] |
| 19 | RGU1594-Q | S.WOOFER BUTTON | [M] |
| 23 | RGU1589-Q | FUNCTION BUTTON | [M] |
| 26 | RGU1592-Q | DISK SEL. BUTTON | [M] |
| 27 | RGWX0027-1S | VOLUME KNOB | [M] |
| 29 | RHD30076-K | SCREW | [M] |
| 30 | RHD30048 | SCREW | [M] |
| 31 | RFKLACH330AK | CASS HOLDER ASS'Y L | [M] |
| 31-1 | RUS757ZAA | CASS HALF SPRING | [M] |
| 32 | RFKLACH330BK | CASS HOLDER ASS'Y R | [M] |
| 32-1 | RUS757ZAA | CASS HALF SPRING | [M] |
| 33 | RKM0371A-S | TOP CABINET | [M] |
| 34 | RMB0446 | CASS OPEN SPRING | [M] |
| 35 | RMB0564-1 | CD OPEN SPRING | [M] |
| 36 | RMC0158-S | TH FIXTURE | [M] |
| 37 | RME0221 | HOLDER ARM SPRING | [M] |
| 38 | RMGX0020-K | RUBBER SPACER | [M] |
| 40 | RFKJAAK25GCK | BOTT. CHASSIS ASS'Y | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| 40-1 | RKA0059-K | LEG RUBBER | [M] |
| 43 | RMN0350 | 8 LED HOLDER | [M] |
| 44 | RMN0454 | FL HOLDER | [M] |
| 45 | RMNX0017-X | MAIN PCB HOLDER | [M] |
| 46 | RMN0456 | LED HOLDER (CD) | [M] |
| 47 | RMN0457 | LED HOLDER (AMP) | [M] |
| 48 | RMN0458 | LED HOLDER2(AMP) | [M] |
| 49 | RMN0482 | LED HOLDER | [M] |
| 50 | RXX0199-1 | HEAT SINK | [M] |
| 51 | SHE187-4 | SPACER (TRANS) | [M] |
| 52 | XTB3+10J | SCREW | [M] |
| 53 | XTB3+10JFZ | SCREW | [M] |
| 54 | XTB3+20J1 | SCREW | [M] |
| 55 | XTBS26+10J | SCREW | [M] |
| 56 | XTBS3+8JFZ1 | SCREW | [M] |
| 57 | XTW3+15T | SCREW | [M] |
| 58 | XTB3+12J | SCREW | [M] |
| 59 | XTB3+8JFZ | SCREW | [M] |
| 60 | XTBS26+12J | SCREW | [M] |
| 62 | RGW0274-S | JOY STICK KNOB | [M] |
| 63 | RGW0275 S | JOG KNOB ASSEMBLY | [M] |
| 65 | RGK0963-Q | AI EQ CAP | [M] |
| 66 | RGL0382-Q | JOG RING LIGHTING | [M] |
| 69 | RMR1159-X | MECHA HOLDER (L) | [M] |
| 70 | RMR1160-X | MECHA HOLDER (R) | [M] |
| 71 | RMRX0026-W | WIRE CLAMPER | [M] |
| 72 | RMV0150 | HEAT PROTECT SHEET | [M] |
| 74 | RMR1171-X | CD MECHA SUPPORT | [M] |
| 75 | RMN0496 | LED CASE (DPL) | [M] |
| 76 | REX0893 | 5P WIRE | [M] |
| 77 | REXX0190 | 7P WIRE | [M] |
| 78 | RGU1648-Q | DPL BUTTON | [M] |
| 80 | RMN0203 | TUNER PCB HOLDER | [M] |
| 82 | REEX0031 | ORANGE | [M] |
| 84 | REE0865 | 32P FFC | [M] |
| | | | |
| | | **INTEGRATED CIRCUITS** | |
| | | | |
| IC1 | BAC418N | IC, DRIVER | [M] |
| IC101 | LA1833MN-TLM | IC, IF & MPX | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| IC101 | M51167BFP-TB | IC, R/P | [M] |
| IC102 | BA7755A | IC, SW | [M] |
| IC102 | LC72131MDTRM | IC, PLL | [M] |
| IC103 | CXA1102M-T4 | IC, DOLBY | [M] |
| IC104 | BU4066BCF-E2 | IC, ANALOG SW | [M] |
| IC105 | BU2040F-E2 | IC, I/O | [M] |
| IC301 | M62433AFP | IC, AUDIO | [M] |
| IC302 | M5218AP | IC, BUFFER AMP | [M] |
| IC501 | BA178M05T | IC, 5V REGULATOR | [M]⚠ |
| IC601 | RSN309W44-P | IC, HIC | [M]⚠ |
| IC701 | AN8837SBE1 | IC, SERVO AMP. | [M] |
| IC702 | MN662746RPK1 | IC, DIGITAL LSI | [M] |
| IC703 | AN8780SBE2 | IC, 4 CH DRIVE | [M] |
| IC801 | LV1030N | IC | [M] |
| IC802 | M5228FPE1 | IC, QUAD OP AMP | [M] |
| IC803 | M62425FPE1 | IC, VR | [M] |
| IC804 | M5228FPE1 | IC, QUAD OP AMP | [M] |
| IC901 | M38198MCA809 | IC, MICRO-P | [M] |
| IC902 | BA3835F-E2 | IC, SPK ANA | [M] |
| IC903 | BU2090F-E2 | IC, IO EXPANDER | [M] |
| IC904 | BU2090F-E2 | IC, IO EXPANDER | [M] |
| IC951 | 0N2180RLC | IC, HALL | [M] |
| IC971 | 0N2180RLC | IC, HALL | [M] |
| | | | |
| | | **TRANSISTORS** | |
| | | | |
| Q101 | 2SC2787LTA | TRANSISTOR | [M] |
| Q101 | 2SJ164QRTA | TRANSISTOR | [M] |
| Q102 | 2SC2787LTA | TRANSISTOR | [M] |
| Q102 | 2SJ164QRTA | TRANSISTOR | [M] |
| Q103 | 2SJ164QRTA | TRANSISTOR | [M] |
| Q104 | 2SJ164QRTA | TRANSISTOR | [M] |
| Q106 | RVTDTA114EST | TRANSISTOR | [M] |
| Q107 | BA1L4ZTA | TRANSISTOR | [M] |
| Q108 | BA1L4ZTA | TRANSISTOR | [M] |
| Q115 | 2SD1020HTA | TRANSISTOR | [M] |
| Q116 | 2SD1020HTA | TRANSISTOR | [M] |
| Q117 | BA1L4MTA | TRANSISTOR | [M] |
| Q118 | 2SC2785FTA | TRANSISTOR | [M] |
| Q119 | 2SC2785FTA | TRANSISTOR | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| Q120 | 2SC2785FTA | TRANSISTOR | [M] |
| Q121 | 2SC2785FTA | TRANSISTOR | [M] |
| Q151 | BA1L4ZTA | TRANSISTOR | [M] |
| Q152 | BA1L4ZTA | TRANSISTOR | [M] |
| Q153 | 2SC1740SLNET | TRANSISTOR | [M] |
| Q154 | 2SC1740SLNET | TRANSISTOR | [M] |
| Q171 | 2SD1302STA | TRANSISTOR | [M] |
| Q173 | BA1L4ZTA | TRANSISTOR | [M] |
| Q174 | 2SC2785FTA | TRANSISTOR | [M] |
| Q175 | 2SD1302STA | TRANSISTOR | [M] |
| Q176 | 2SD1302STA | TRANSISTOR | [M] |
| Q179 | 2SC2784FTA | TRANSISTOR | [M] |
| Q203 | 2SD965RTA | TRANSISTOR | [M] |
| Q206 | 2SB621RTA | TRANSISTOR | [M] |
| Q207 | 2SB621RTA | TRANSISTOR | [M] |
| Q208 | BA1A4ZTA | TRANSISTOR | [M] |
| Q209 | BA1A4ZTA | TRANSISTOR | [M] |
| Q218 | BN1A4MTA | TRANSISTOR | [M] |
| Q220 | BN1L3NTA | TRANSISTOR | [M] |
| Q303 | 2SD1020HTA | TRANSISTOR | [M] |
| Q304 | 2SD1020HTA | TRANSISTOR | [M] |
| Q305 | RVTDTA114TST | TRANSISTOR | [M] |
| Q501 | 2SD2395E | TRANSISTOR | [M]⚠ |
| Q502 | 2SC3940AQSTA | TRANSISTOR | [M]⚠ |
| Q503 | 2SD2395E | TRANSISTOR | [M]⚠ |
| Q504 | 2SB1566E | TRANSISTOR | [M]⚠ |
| Q505 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q507 | 2SD2395E | TRANSISTOR | [M]⚠ |
| Q508 | 2SD2395E | TRANSISTOR | [M] |
| Q509 | BN1A4MTA | TRANSISTOR | [M] |
| Q510 | BA1A4MTA | TRANSISTOR | [M] |
| Q511 | 2SC2001KTA | TRANSISTOR | [M]⚠ |
| Q512 | 2SD2395E | TRANSISTOR | [M]⚠ |
| Q513 | KSD471ACYGTA | TRANSISTOR | [M]⚠ |
| Q514 | 2SB1238QRTV2 | TRANSISTOR | [M]⚠ |
| Q515 | 2SC2785FTA | TRANSISTOR | [M] |
| Q515 | RVTDTC114TST | TRANSISTOR | [M] |
| Q516 | 2SA933SSTA | TRANSISTOR | [M] |
| Q516 | 2SC2785FTA | TRANSISTOR | [M] |
| Q519 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q520 | 2SA933SSTA | TRANSISTOR | [M] |
| Q601 | 2SD1859QRTV2 | TRANSISTOR | [M]⚠ |
| Q602 | 2SB1238QRTV2 | TRANSISTOR | [M]⚠ |
| Q701 | 2SA1037AKSTX | TRANSISTOR | [M] |
| Q702 | DTC114YKA146 | TRANSISTOR | [M] |
| Q801 | 2SD1450STA | TRANSISTOR | [M] |
| Q802 | 2SD1450STA | TRANSISTOR | [M] |
| Q803 | RVTDTA114TST | TRANSISTOR | [M] |
| Q804 | RVTDTA114TST | TRANSISTOR | [M] |
| Q805 | 2SD1450STA | TRANSISTOR | [M] |
| Q806 | 2SD1450STA | TRANSISTOR | [M] |
| Q807 | RVTDTA114TST | TRANSISTOR | [M] |
| Q808 | 2SD1020HTA | TRANSISTOR | [M] |
| Q809 | 2SD1020HTA | TRANSISTOR | [M] |
| Q810 | 2SD1020HTA | TRANSISTOR | [M] |
| Q811 | 2SC2785FTA | TRANSISTOR | [M] |
| Q811 | 2SD2137PQTA | TRANSISTOR | [M]⚠ |
| Q812 | RVTDTA114TST | TRANSISTOR | [M] |
| Q813 | RVTDTA114TST | TRANSISTOR | [M] |
| Q814 | RVTDTA114EST | TRANSISTOR | [M] |
| Q815 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q816 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q820 | 2SC2785FTA | TRANSISTOR | [M] |
| Q901 | RVTDTA114EST | TRANSISTOR | [M] |
| Q902 | RVTDTA114EST | TRANSISTOR | [M] |
| Q903 | RVTDTA114EST | TRANSISTOR | [M] |
| Q904 | RVTDTA114EST | TRANSISTOR | [M] |
| Q905 | RVTDTA114EST | TRANSISTOR | [M] |
| Q906 | RVTDTA114EST | TRANSISTOR | [M] |
| Q907 | RVTDTA114EST | TRANSISTOR | [M] |
| Q908 | RVTDTA114EST | TRANSISTOR | [M] |
| Q924 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q927 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q929 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q930 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q932 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q933 | 2SC1740SSTA | TRANSISTOR | [M] |
| Q934 | RVTDTC124EST | TRANSISTOR | [M] |
| Q935 | 2SB621ARSTA | TRANSISTOR | [M] |
| | | | |
| | | **DIODES** | |
| | | | |
| D101 | MTZJ5R1BTA | DIODE | [M] |
| D171 | RVD1SS133TA | DIODE | [M] |
| D172 | MTZJ4R7BTA | DIODE | [M] |
| D173 | RVD1SS133TA | DIODE | [M] |
| D174 | MTZJ3R6BTA | DIODE | [M] |
| D175 | RVD1SS133TA | DIODE | [M] |
| D201 | RVD1SS133TA | DIODE | [M] |
| D202 | RVD1SS133TA | DIODE | [M] |
| D302 | RVD1SS133TA | DIODE | [M] |
| D331 | MTZJ5R1BTA | DIODE | [M] |
| D332 | MTZJ5R1BTA | DIODE | [M] |
| D501 | 1N5402BM21 | DIODE | [M]⚠ |
| D502 | 1N5402BM21 | DIODE | [M]⚠ |
| D503 | 1N5402BM21 | DIODE | [M]⚠ |
| D504 | 1N5402BM21 | DIODE | [M]⚠ |
| D505 | 1N5402BM21 | DIODE | [M]⚠ |
| D506 | 1N5402BM21 | DIODE | [M]⚠ |
| D507 | 1D3E | DIODE | [M]⚠ |
| D508 | 1D3E | DIODE | [M] |
| D509 | 1D3E | DIODE | [M] |
| D510 | 1D3E | DIODE | [M] |
| D511 | 1D3E | DIODE | [M] |
| D512 | 1D3E | DIODE | [M] |
| D513 | MTZJ5R1CTA | DIODE | [M] |
| D515 | MTZJ16ATA | DIODE | [M]⚠ |
| D516 | MTZJ8R2BTA | DIODE | [M]⚠ |
| D517 | RVD1SS133TA | DIODE | [M] |
| D518 | MTZJ9R1CTA | DIODE | [M]⚠ |
| D519 | MTZJ5R6BTA | DIODE | [M]⚠ |
| D520 | MTZJ11CTA | DIODE | [M]⚠ |
| D521 | 1D3E | DIODE | [M] |
| D522 | MTZJ6R8ATA | DIODE | [M] |
| D523 | 1D3E | DIODE | [M]⚠ |
| D523 | MTZJ30DTA | DIODE | [M] |
| D524 | RVD1SS133TA | DIODE | [M] |
| D525 | 1SS291TA | DIODE | [M] |
| D525 | RVD1SS133TA | DIODE | [M] |
| D526 | RVD1SS133TA | DIODE | [M] |
| D527 | RVD1SS133TA | DIODE | [M] |
| D528 | RVD1SS133TA | DIODE | [M] |
| D529 | RVD1SS133TA | DIODE | [M] |
| D530 | 1D3E | DIODE | [M] |
| D531 | 1D3E | DIODE | [M] |
| D532 | 1D3E | DIODE | [M]⚠ |
| D532 | RVD1SS133TA | DIODE | [M] |
| D533 | 1D3E | DIODE | [M]⚠ |
| D533 | RVD1SS133TA | DIODE | [M] |
| D538 | 1D3E | DIODE | [M] |
| D539 | 1D3E | DIODE | [M] |
| D601 | RK306LFU1 | DIODE | [M] |
| D602 | RK306LFU1 | DIODE | [M] |
| D604 | MTZJ24DTA | DIODE | [M]⚠ |
| D605 | MTZJ24DTA | DIODE | [M]⚠ |
| D606 | MTZJ24DTA | DIODE | [M]⚠ |
| D607 | MTZJ24DTA | DIODE | [M]⚠ |
| D704 | RVD1SS133TA | DIODE | [M] |
| D801 | MA700TA | DIODE | [M] |
| D801 | RVD1SS133TA | DIODE | [M] |
| D802 | MA700TA | DIODE | [M] |
| D802 | RVD1SS133TA | DIODE | [M] |
| D806 | RVD1SS133TA | DIODE | [M] |
| D807 | RVD1SS133TA | DIODE | [M] |
| D808 | MTZJ12CTA | DIODE | [M]⚠ |
| D901 | SML79455C | DIODE | [M] |
| D902 | SML79455C | DIODE | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| D903 | SML79455C | DIODE | [M] |
| D904 | SML79455C | DIODE | [M] |
| D905 | SML79455C | DIODE | [M] |
| D906 | SML79455C | DIODE | [M] |
| D907 | SML79455C | DIODE | [M] |
| D908 | SML79455C | DIODE | [M] |
| D916 | LNJ301MPUJAD | DIODE | [M] |
| D917 | LNJ301MPUJAD | DIODE | [M] |
| D918 | LNJ301MPUJAD | DIODE | [M] |
| D919 | LNJ301MPUJAD | DIODE | [M] |
| D920 | SLR325DCT31 | DIODE | [M] |
| D921 | LNJ301MPUJAD | DIODE | [M] |
| D923 | LNJ301MPUJAD | DIODE | [M] |
| D924 | LNJ301MPUJAD | DIODE | [M] |
| D927 | SLR325DCT31 | DIODE | [M] |
| D929 | LNJ301MPUJAD | DIODE | [M] |
| D930 | LNJ301MPUJAD | DIODE | [M] |
| D931 | LNJ301MPUJAD | DIODE | [M] |
| D932 | LNJ301MPUJAD | DIODE | [M] |
| D951 | MA165TA | DIODE | [M] |
| D966 | RVD1SS133TA | DIODE | [M] |
| D967 | RVD1SS133TA | DIODE | [M] |
| D971 | MA165TA | DIODE | [M] |
| D971 | RVD1SS133TA | DIODE | [M] |
| D973 | 1SS291TA | DIODE | [M] |
| D974 | 1SS291TA | DIODE | [M] |
| D975 | RVD1SS133TA | DIODE | [M] |
| D976 | RVD1SS133TA | DIODE | [M] |
| D977 | 1SS291TA | DIODE | [M] |
| D978 | RVD1SS133TA | DIODE | [M] |
| D979 | RVD1SS133TA | DIODE | [M] |
| D980 | RVD1SS133TA | DIODE | [M] |
| D981 | 1SS291TA | DIODE | [M] |
| D982 | RVD1SS133TA | DIODE | [M] |
| D983 | RVD1SS133TA | DIODE | [M] |
| D984 | RVD1SS133TA | DIODE | [M] |
| D985 | RVD1SS133TA | DIODE | [M] |
| D986 | 1D3E | DIODE | [M] |
| D987 | MA4020LTA | DIODE | [M] |
| D990 | LNJ301MPUJAD | DIODE | [M] |
| D991 | LNJ301MPUJAD | DIODE | [M] |
| D992 | RVD1SS133TA | DIODE | [M] |
| D993 | RVD1SS133TA | DIODE | [M] |
| D994 | RVD1SS133TA | DIODE | [M] |
| D995 | RVD1SS133TA | DIODE | [M] |
| D996 | RVD1SS133TA | DIODE | [M] |
| D997 | RVD1SS133TA | DIODE | [M] |
| D998 | RVD1SS133TA | DIODE | [M] |
| D999 | RVD1SS133TA | DIODE | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | **VARIABLE RESISTORS** | |
| VR101 | RRN6B05B24TA | SEMIFIXED VR | [M] |
| VR102 | RRN6B05B24TA | SEMIFIXED VR | [M] |
| VR103 | RRN6B05B24TA | SEMIFIXED VR | [M] |
| VR104 | RRN6B05B24TA | SEMIFIXED VR | [M] |
| VR201 | RRN6B05B73TA | SEMIFIXED VR | [M] |
| VR901 | EVQVBPF0224B | ENCODER VOLUME | [M] |
| VR902 | RES0018 | JOG & JOY | [M] |
| | | | |
| | | **SWITCHES** | |
| S1 | RSH1A005 | SW, LEAF | [M] |
| S2 | RSH1A032-U | SW, MECHA | [M] |
| S3 | RSH1A032-U | SW, MECHA | [M] |
| S4 | RSH1A005 | SW, LEAF | [M] |
| S5 | RSH1A032-U | SW, MECHA | [M] |
| S701 | RSH1A043-U | SW, RESET | [M] |
| S901 | EVQ21405R | SW, TUNER | [M] |
| S902 | EVQ21405R | SW, REV/PLAY | [M] |
| S903 | EVQ21405R | SW, CD | [M] |
| S904 | EVQ21405R | SW, FWD/PLAY | [M] |
| S905 | EVQ21405R | SW, TAPE | [M] |
| S906 | EVQ21405R | SW, DISPLAY | [M] |
| S908 | EVQ21405R | SW, STOP | [M] |
| S909 | EVQ21405R | SW, AUX | [M] |
| S910 | EVQ21405R | SW | [M] |
| S912 | EVQ21405R | SW, FF | [M] |
| S913 | EVQ21405R | SW, CLK/TIMER | [M] |
| S914 | EVQ21405R | SW, REW | [M] |
| S915 | EVQ21405R | SW, PLAY/REC | [M] |
| S916 | EVQ21405R | SW, OPEN/CLOSE | [M] |
| S917 | EVQ21405R | SW, DECK1/OPEN | [M] |
| S918 | EVQ21405R | SW, CD MANAGER | [M] |
| S919 | EVQ21405R | SW, NEXT/AUTO | [M] |
| S920 | EVQ21405R | SW, EDIT | [M] |
| S921 | EVQ21405R | SW, DISC 5 | [M] |
| S922 | EVQ21405R | SW, RANDOM | [M] |
| S923 | EVQ21405R | SW, REC | [M] |
| S924 | EVQ21405R | SW, DISC 4 | [M] |
| S925 | EVQ21405R | SW, SUPER WOOFER | [M] |
| S926 | EVQ21405R | SW | [M] |
| S927 | EVQ21405R | SW, DISC 3 | [M] |
| S928 | EVQ21405R | SW, REV/MODE | [M] |
| S929 | EVQ21405R | SW, DISC 2 | [M] |
| S930 | EVQ21405R | SW, DECK2/OPEN | [M] |
| S931 | EVQ21405R | SW, DISC 1 | [M] |
| S932 | EVQ21405R | SW, POWER | [M] |
| S933 | EVQ21405R | SW | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| S951 | RSH1A018-1U | SW, MODE DETECT | [M] |
| S952 | RSH1A019-2U | SW, TAPE DETECT | [M] |
| S953 | RSH1A019-2U | SW, Cr02 DETECT | [M] |
| S971 | RSH1A018-1U | SW, MODE DETECT | [M] |
| S972 | RSH1A019-2U | SW, TAPE DETECT | [M] |
| S973 | RSH1A019-2U | SW, Cr02 DETECT | [M] |
| S974 | RSH1A019-2U | SW, REC DETECT | [M] |
| S975 | RSH1A019-2U | SW, REC DETECT | [M] |
| | | | |
| | | **CONNECTORS** | |
| | | | |
| CN1 | RJS1A6714 | 14P CONNECTOR | [M] |
| CN100 | RJS1A5210 | 10P WIRE HOLDER | [M] |
| CN101B | RJU100W07 | 7P CONNECTOR | [M] |
| CN102B | RJU100W07 | 7P CONNECTOR | [M] |
| CN201 | RJS8T7ZA | 8P MOLEX | [M] |
| CN501 | RJP5G4YA | CONNECTOR | [M] |
| CN502 | RJP9G4YA | 9P PLUG IN CONNECTOR | [M] |
| CN503 | RJU057W012 | 12P B/B TO POWER | [M] |
| CN504 | RJU057W012 | 12P B/B TO POWER | [M] |
| CN701 | RJS2A6016 | 16P FFC CONNECTOR | [M] |
| CN702 | RJS1A6723-1Q | 23P FFC CONNECTOR | [M] |
| CN801 | RJU057W009 | 9P B-B | [M] |
| CN802 | RJU057W008 | CONNECTOR | [M] |
| CN901 | RJS1A6214-1 | 14P FFC CONNECTOR | [M] |
| CN902 | RJS1A6223-1 | 23P CONNECTOR | [M] |
| CN903 | RJS1A9320 | 20P FFC TO MAIN | [M] |
| CN903 | RJS1A9420 | 20P FFC TO MAIN | [M] |
| CN904 | RJS1A9323 | FFC CONNECTOR | [M] |
| CN904 | RJS1A9423 | FFC CONNECTOR | [M] |
| CN906 | RJU071H11M | CONNECTOR | [M] |
| CP1 | RJT100W07 | 7P CONNECTOR | [M] |
| CP2 | RJT100W07 | 7P CONNECTOR | [M] |
| CP101 | RJT071H09A | 9P B-B PIN | [M] |
| CP102 | RJT071H09A | 9P B-B PIN | [M] |
| CP503 | RJT057W012-1 | 12P B/B TO MAIN | [M] |
| CP504 | RJT057W012-1 | 12P B/B TO MAIN | [M] |
| CP801 | RJT057W009-1 | 9P B-B PIN | [M] |
| CP802 | RJT057W008-1 | CONNECTOR | [M] |
| CP906 | RJT071H11A | CONNECTOR | [M] |
| CS101 | RJS1A6805-J | 5P CONNECTOR SOCKET | [M] |
| CS102 | RJS1A6805-J | 5P CONNECTOR SOCKET | [M] |
| CS951 | RJU071H09M1 | 9P CONNECTOR | [M] |
| CS971 | RJU071H09M1 | 9P CONNECTOR | [M] |
| | | | |
| | | **COILS & TRANSFORMERS** | |
| | | | |
| L101 | ELESNR68MA | CHOKE COIL | [M] |
| L102 | ELESNR68MA | CHOKE COIL | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| L103 | ELEXTR47MA9 | CHOKE COIL | [M] |
| L201 | RL08C002M-T | BIAS OSC COIL | [M] |
| L202 | RLQZB470KT-D | RF CHOKE COIL | [M] |
| L500 | RLQZ271M | LINE FILTER | [M]⚠ |
| L601 | RLQYR73MW-E | CHOKE COIL | [M] |
| L602 | RLQYR73MW-E | CHOKE COIL | [M] |
| L801 | RLQZP1R0KT-Y | AXIAL COIL | [M] |
| L901 | RLQZP3R3KT-Y | COIL | [M] |
| L902 | RLQZP101KT-Y | AXIAL COIL | [M] |
| L905 | RLQZP101KT-Y | AXIAL COIL | [M] |
| L908 | RLQZP100KT-Y | INDUCTOR | [M] |
| L909 | RLQZP101KT-Y | AXIAL COIL | [M] |
| L910 | RLQZP101KT-Y | AXIAL COIL | [M] |
| T501 | RTP2N3B002 | TRANSFORMER | [M]⚠ |
| | | | |
| | | **COMPONENT COMBINATION** | |
| | | | |
| Z101 | EXBF7L355SYV | RADA RESISTOR | [M] |
| Z101 | RLA2Z003M-T | ANT COIL BLOCK | [M] |
| Z102 | RLI2Z006M-T | AM IFT | [M] |
| Z120 | ENV17290G1Y | FM TUNER PACK | [M] |
| Z501 | ERZV10V511CS | ZNR | [M]⚠ |
| Z901 | RCDGP1U28XD | REMOTE SENSOR | [M] |
| | | | |
| | | **CERAMIC FILTERS** | |
| | | | |
| CF201 | RLFFETNGD01L | CERAMIC FILTER | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| CF202 | RLFFETMGD01L | CERAMIC FILTER | [M] |
| | | | |
| | | **RELAYS** | |
| | | | |
| RLY501 | RSY0030M-0 | RELAY | [M]⚠ |
| | | | |
| | | **OSCILLATORS** | |
| | | | |
| X102 | RLFDFT13DD | FM RESONATOR | [M] |
| X103 | SVQ49U722T-S | NIL | [M] |
| X701 | RSXZ16M9M01T | CERAMIC OSC | [M] |
| X801 | RSXY8M00M06T | CERAMIC OSCILLATOR | [M] |
| X901 | RSXD32K7S02 | 32.768HKZ XTAL | [M] |
| X902 | RSXZ8M00D01T | 8 MHZ RESONATOR | [M] |
| | | | |
| | | **DISPLAY TUBE** | |
| | | | |
| FL901 | RSL0249-F | FL | [M] |
| | | | |
| | | **FUSES** | |
| | | | |
| F1 | XBA2C20TB0 | FUSE 100 | [M]⚠ |
| | | | |
| | | **FUSE CLIP** | |
| | | | |
| FC501 | EYF52BC | FUSE HOLDER | [M] |
| FC502 | EYF52BC | FUSE HOLDER | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | **HOLDERS** | |
| | | | |
| H100 | RMR0319 | 10P CABLE HOLDER | [M] |
| H201 | RMR0317 | 8P CABLE HOLDER | [M] |
| H501 | RJS1A5505 | 5P WIRE HOLDER | [M] |
| H502 | RJS1A5509 | 9P CABLE HOLDER | [M] |
| | | | |
| | | **JACKS** | |
| | | | |
| JK101 | RJH5210-1 | JK, ANTENNA | [M] |
| JK301 | RJH2206 | JK, RCA | [M] |
| JK500 | SJS9236-1 | JK, SOCKET | [M]⚠ |
| JK601 | RJR0054B-J | JK, SPEAKER | [M] |
| JK602 | RJR0054C-J | JK, SPEAKER | [M] |
| JK603 | RJI2301MS | JK, 3P | [M] |
| JK903 | RJJ37TK07-H | JK, HP | [M] |
| | | | |
| | | **EARTH TERMINALS** | |
| | | | |
| E500 | SNE1004-2 | EARTH TERMINAL | [M] |
| | | | |
| | | **WIRES** | |
| | | | |
| W200 | RWJ0104065CK | WIRE | [M] |
| W201 | RWJ0208155RX | WIRE 8P | [M] |
| W502 | REX0912 | 9P CABLE | [M] |

# Resistors & Capacitors

**Notes :**
* Capacitor values are in microfarads (mF) unless specified otherwise, P=Pico-farads (pF), F=Farads.
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
* Bracketed indications in Values & Remarks columns specify the area (Refer to the first page for area). Parts without these indications can be used for all areas.
* [M] Indicates in the values & remarks column indicates parts supplied by **MESA**

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| | | **RESISTORS** |
| | | |
| R101 | ERDS2TJ334T | 330K 1/4W [M] |
| R102 | ERDS2TJ104T | 100K 1/4W [M] |
| R102 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R103 | ERDS2TJ101T | 100 1/4W [M] |
| R103 | ERDS2TJ153T | 15K 1/4W [M] |
| R104 | ERDS2TJ103T | 10K 1/4W [M] |
| R104 | ERDS2TJ153T | 15K 1/4W [M] |
| R105 | ERDS2TJ271T | 270 1/4W [M] |
| R105 | ERDS2TJ471T | 470 1/4W [M] |
| R106 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R106 | ERDS2TJ474T | 470K 1/4W [M] |
| R107 | ERDS2TJ330T | 33 1/4W [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| R107 | ERDS2TJ331T | 330 1/4W [M] |
| R108 | ERDS2TJ330T | 33 1/4W [M] |
| R108 | ERDS2TJ474T | 470K 1/4W [M] |
| R109 | ERDS2TJ331T | 330 1/4W [M] |
| R109 | ERDS2TJ432T | 4.3K 1/4W [M] |
| R110 | ERDS2TJ102T | 1K 1/4W [M] |
| R110 | ERDS2TJ432T | 4.3K 1/4W [M] |
| R111 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R111 | ERDS2TJ391T | 390 1/4W [M] |
| R112 | ERDS2TJ104T | 100K 1/4W [M] |
| R112 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R113 | ERDS2TJ103T | 10K 1/4W [M] |
| R114 | ERDS2TJ562T | 5.6K 1/4W [M] |
| R115 | ERDS2TJ474T | 470K 1/4W [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| R115 | ERDS2TJ561T | 560 1/4W [M] |
| R116 | ERDS2TJ102T | 1K 1/4W [M] |
| R116 | ERDS2TJ474T | 470K 1/4W [M] |
| R117 | ERDS2TJ274T | 270K 1/4W [M] |
| R117 | ERDS2TJ683T | 68K 1/4W [M] |
| R118 | ERDS2TJ274T | 270K 1/4W [M] |
| R118 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R119 | ERDS2TJ333T | 33K 1/4W [M] |
| R120 | ERDS2TJ473T | 47K 1/4W [M] |
| R121 | ERDS2TJ223T | 22K 1/4W [M] |
| R121 | ERDS2TJ333T | 33K 1/4W [M] |
| R122 | ERDS2TJ272T | 2.7K 1/4W [M] |
| R122 | ERDS2TJ333T | 33K 1/4W [M] |
| R123 | ERDS2TJ103T | 10K 1/4W [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| R123 | ERDS2TJ683T | 68K 1/4W [M] |
| R124 | ERDS2TJ103T | 10K 1/4W [M] |
| R124 | ERDS2TJ271T | 270 1/4W [M] |
| R125 | ERDS2TJ102T | 1K 1/4W [M] |
| R125 | ERDS2TJ471T | 470 1/4W [M] |
| R126 | ERDS2TJ102T | 1K 1/4W [M] |
| R126 | ERDS2TJ152T | 1.5K 1/4W [M] |
| R127 | ERDS2TJ471T | 470 1/4W [M] |
| R128 | ERDS2TJ820T | 82 1/4W [M] |
| R129 | ERDS2TJ273T | 27K 1/4W [M] |
| R129 | ERDS2TJ822T | 8.2K 1/4W [M] |
| R130 | ERDS2TJ103T | 10K 1/4W [M] |
| R130 | ERDS2TJ822T | 8.2K 1/4W [M] |
| R131 | ERDS2TJ680T | 68 1/4W [M] |

| Ref. No. | Part No. | Values & Remarks | | | Ref. No. | Part No. | Values & Remarks | | | Ref. No. | Part No. | Values & Remarks | | | Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R131 | ERDS2TJ683T | 68K | 1/4W | [M] | R179 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R319 | ERDS2TJ183T | 18K | 1/4W | [M] | R387 | ERDS2TJ102T | 1K | 1/4W | [M] |
| R132 | ERDS2TJ103T | 10K | 1/4W | [M] | R180 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R320 | ERDS2TJ223T | 22K | 1/4W | [M] | R388 | ERDS2TJ102T | 1K | 1/4W | [M] |
| R132 | ERDS2TJ335T | 3.3M | 1/4W | [M] | R181 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R323 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R389 | ERDS2TJ222T | 2.2K | 1/4W | [M] |
| R133 | ERDS2TJ102T | 1K | 1/4W | [M] | R182 | ERDS2TJ1R0T | 1 | 1/4W | [M] | R324 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R391 | ERDS2TJ103T | 10K | 1/4W | [M] |
| R133 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R183 | ERDS2TJ104T | 100K | 1/4W | [M] | R325 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R392 | ERDS2TJ103T | 10K | 1/4W | [M] |
| R134 | ERDS2TJ471T | 470 | 1/4W | [M] | R184 | ERDS2TJ104T | 100K | 1/4W | [M] | R326 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R393 | ERDS2TJ563T | 56K | 1/4W | [M] |
| R134 | ERDS2TJ474T | 470K | 1/4W | [M] | R185 | ERDS2TJ104T | 100K | 1/4W | [M] | R327 | ERDS2TJ153T | 15K | 1/4W | [M] | R394 | ERDS2TJ563T | 56K | 1/4W | [M] |
| R135 | ERDS2TJ102T | 1K | 1/4W | [M] | R186 | ERDS2TJ102T | 1K | 1/4W | [M] | R328 | ERDS2TJ153T | 15K | 1/4W | [M] | R395 | ERDS2TJ683T | 68K | 1/4W | [M] |
| R136 | ERDS2TJ102T | 1K | 1/4W | [M] | R188 | ERDS2TJ102T | 1K | 1/4W | [M] | R329 | ERDS2TJ561T | 560 | 1/4W | [M] | R396 | ERDS2TJ683T | 68K | 1/4W | [M] |
| R137 | ERDS2TJ102T | 1K | 1/4W | [M] | R189 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R330 | ERDS2TJ561T | 560 | 1/4W | [M] | R397 | ERDS2TJ122T | 1.2K | 1/4W | [M] |
| R137 | ERDS2TJ103T | 10K | 1/4W | [M] | R190 | ERDS2TJ104T | 100K | 1/4W | [M] | R331 | ERDS2TJ102T | 1K | 1/4W | [M] | R398 | ERDS2TJ2R7T | 2.7 | 1/4W | [M] |
| R138 | ERDS2TJ103T | 10K | 1/4W | [M] | R191 | ERDS2TJ563T | 56K | 1/4W | [M] | R332 | ERDS2TJ102T | 1K | 1/4W | [M] | R399 | ERDS2TJ471T | 470 | 1/4W | [M] |
| R138 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R192 | ERDS2TJ470T | 47 | 1/4W | [M] | R339 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R501 | ERDS1FVJ270T | 27 | 1/2W | ⚠[M] |
| R139 | ERDS2TJ103T | 10K | 1/4W | [M] | R193 | ERDS2TJ104T | 100K | 1/4W | [M] | R340 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R502 | ERDS1FVJ270T | 27 | 1/2W | ⚠[M] |
| R141 | ERDS2TJ102T | 1K | 1/4W | [M] | R194 | ERDS2TJ104T | 100K | 1/4W | [M] | R341 | ERDS2TJ392T | 3.9K | 1/4W | [M] | R503 | ERDS2TJ332T | 3.3K | 1/4W | [M] |
| R141 | ERDS2TJ682T | 6.8K | 1/4W | [M] | R195 | ERDS2TJ104T | 100K | 1/4W | [M] | R342 | ERDS2TJ392T | 3.9K | 1/4W | [M] | R504 | ERDS2TJ562T | 5.6K | 1/4W | [M] |
| R142 | ERDS2TJ102T | 1K | 1/4W | [M] | R206 | ERDS2TJ221T | 220 | 1/4W | [M] | R343 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R505 | ERDS2TJ562T | 5.6K | 1/4W | [M] |
| R142 | ERDS2TJ682T | 6.8K | 1/4W | [M] | R208 | ERDS2TJ103T | 10K | 1/4W | [M] | R344 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R506 | ERDS2TJ223T | 22K | 1/4W | [M] |
| R143 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R209 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R345 | ERDS2TJ102T | 1K | 1/4W | [M] | R507 | ERDS2TJR47T | 0.JR | 1/4W | [M] |
| R143 | ERDS2TJ223T | 22K | 1/4W | [M] | R213 | ERDS2TJ152T | 1.5K | 1/4W | [M] | R346 | ERDS2TJ102T | 1K | 1/4W | [M] | R511 | ERDS1FVJ562T | 5.6K | 1/2W | ⚠[M] |
| R144 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R215 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R347 | ERDS2TJ473T | 47K | 1/4W | [M] | R513 | ERDS2TJ561T | 560 | 1/4W | [M] |
| R145 | ERDS2TJ103T | 10K | 1/4W | [M] | R216 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R348 | ERDS2TJ473T | 47K | 1/4W | [M] | R514 | ERDS1FVJ6R8T | 6.8 | 1/2W | ⚠[M] |
| R145 | ERDS2TJ104T | 100K | 1/4W | [M] | R220 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R349 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R515 | ERDS2TJ151T | 150 | 1/4W | [M] |
| R146 | ERDS2TJ103T | 10K | 1/4W | [M] | R221 | ERDS2TJ2R7T | 2.7 | 1/4W | [M] | R350 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R516 | ERDS2TJ152T | 1.5K | 1/4W | [M] |
| R146 | ERDS2TJ104T | 100K | 1/4W | [M] | R225 | ERDS2TJ2R7T | 2.7 | 1/4W | [M] | R351 | ERDS2TJ153T | 15K | 1/4W | [M] | R517 | ERDS1FVJ180T | 18 | 1/2W | ⚠[M] |
| R149 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R226 | ERDS2TJ102T | 1K | 1/4W | [M] | R352 | ERDS2TJ153T | 15K | 1/4W | [M] | R518 | ERDS1FVJ180T | 18 | 1/2W | ⚠[M] |
| R150 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R227 | ERDS2TJ102T | 1K | 1/4W | [M] | R353 | ERDS2TJ390T | 39 | 1/4W | [M] | R519 | ERDS1FVJ6R8T | 6.8 | 1/2W | ⚠[M] |
| R151 | ERDS2TJ105T | 1M | 1/4W | [M] | R228 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R354 | ERDS2TJ390T | 39 | 1/4W | [M] | R520 | ERDS2TJ332T | 3.3K | 1/4W | [M] |
| R152 | ERDS2TJ105T | 1M | 1/4W | [M] | R229 | ERDS2TJ103T | 10K | 1/4W | [M] | R355 | ERDS2TJ390T | 39 | 1/4W | [M] | R521 | ERDS2TJ561T | 560 | 1/4W | [M] |
| R153 | ERDS2TJ102T | 1K | 1/4W | [M] | R230 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R356 | ERDS2TJ390T | 39 | 1/4W | [M] | R522 | ERDS2TJ560T | 56 | 1/4W | [M] |
| R154 | ERDS2TJ102T | 1K | 1/4W | [M] | R232 | ERDS2TJ102T | 1K | 1/4W | [M] | R357 | ERDS2TJ101T | 100 | 1/4W | [M] | R523 | ERDS2TJ560T | 56 | 1/4W | [M] |
| R155 | ERDS2TJ681T | 680 | 1/4W | [M] | R233 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R358 | ERDS2TJ101T | 100 | 1/4W | [M] | R524 | ERDS2TJ272T | 2.7K | 1/4W | [M] |
| R156 | ERDS2TJ681T | 680 | 1/4W | [M] | R234 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R359 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R525 | ERDS2TJ272T | 2.7K | 1/4W | [M] |
| R158 | ERDS2TJ221T | 220 | 1/4W | [M] | R235 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R360 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R526 | ERDS2TJ391T | 390 | 1/4W | [M] |
| R159 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R236 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R361 | ERDS2TJ104T | 100K | 1/4W | [M] | R527 | ERDS2TJ560T | 56 | 1/4W | [M] |
| R160 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R305 | ERDS2TJ103T | 10K | 1/4W | [M] | R362 | ERDS2TJ104T | 100K | 1/4W | [M] | R528 | ERDS2TJ561T | 560 | 1/4W | [M] |
| R161 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R306 | ERDS2TJ103T | 10K | 1/4W | [M] | R363 | ERDS2TJ103T | 10K | 1/4W | [M] | R529 | ERDS1FVJ150T | 15 | 1/2W | ⚠[M] |
| R162 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R307 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R364 | ERDS2TJ123T | 12K | 1/4W | [M] | R530 | ERDS1FVJ270T | 27 | 1/2W | ⚠[M] |
| R163 | ERDS2TJ433T | 43K | 1/4W | [M] | R308 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R365 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R531 | ERDS1FVJ270T | 27 | 1/2W | ⚠[M] |
| R165 | ERDS2TJ563T | 56K | 1/4W | [M] | R309 | ERDS2TJ103T | 10K | 1/4W | [M] | R366 | ERDS2TJ154T | 150K | 1/4W | [M] | R532 | ERDS1FVJ270T | 27 | 1/2W | ⚠[M] |
| R166 | ERDS2TJ104T | 100K | 1/4W | [M] | R310 | ERDS2TJ103T | 10K | 1/4W | [M] | R367 | ERDS2TJ683T | 68K | 1/4W | [M] | R533 | ERDS2TJ182T | 1.8K | 1/4W | [M] |
| R167 | ERDS2TJ470T | 47 | 1/4W | [M] | R311 | ERDS2TJ392T | 3.9K | 1/4W | [M] | R377 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R534 | ERDS2TJ151T | 150 | 1/4W | [M] |
| R170 | ERDS2TJ102T | 1K | 1/4W | [M] | R312 | ERDS2TJ392T | 3.9K | 1/4W | [M] | R379 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R535 | ERD2FCVJ4R7T | 4.7 | 1/4W | [M] |
| R172 | ERDS2TJ331T | 330 | 1/4W | [M] | R313 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R380 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R535 | ERDS2TJ824T | 820K | 1/4W | [M] |
| R173 | ERDS2TJ103T | 10K | 1/4W | [M] | R314 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R381 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R536 | ERDS2TJ472T | 4.7K | 1/4W | [M] |
| R174 | ERDS2TJ103T | 10K | 1/4W | [M] | R315 | ERDS2TJ100T | 10 | 1/4W | [M] | R382 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R537 | ERDS2TJ151T | 150 | 1/4W | [M] |
| R176 | ERDS2TJ822T | 8.2K | 1/4W | [M] | R316 | ERDS2TJ103T | 10K | 1/4W | [M] | R383 | ERDS2TJ271T | 270 | 1/4W | [M] | R538 | ERDS2TJ153T | 15K | 1/4W | [M] |
| R177 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R317 | ERDS2TJ223T | 22K | 1/4W | [M] | R384 | ERDS2TJ102T | 1K | 1/4W | [M] | R539 | ERDS2TJ393T | 39K | 1/4W | [M] |
| R178 | ERDS2TJ1R2T | 1.2 | 1/4W | [M] | R318 | ERDS2TJ103T | 10K | 1/4W | [M] | R385 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R540 | ERDS2TJ472T | 4.7K | 1/4W | [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| R546 | ERDS2TJ683T | 68K 1/4W [M] |
| R547 | ERDS2TJ224T | 220K 1/4W [M] |
| R591 | RSFMB40KT-L | FUSEPROTECTOR ⚠[M] |
| R592 | RSFMB40KT-L | FUSEPROTECTOR ⚠[M] |
| R601 | ERDS2TJ272T | 2.7K 1/4W [M] |
| R602 | ERD25FVJ331T | 330 1/4W [M] |
| R603 | ERD25FVJ331T | 330 1/4W [M] |
| R606 | ERDS2TJ272T | 2.7K 1/4W [M] |
| R607 | ERDS2TJ153T | 15K 1/4W [M] |
| R608 | ERDS2TJ153T | 15K 1/4W [M] |
| R609 | ERDS2TJ153T | 15K 1/4W [M] |
| R610 | ERDS2TJ153T | 15K 1/4W [M] |
| R611 | ERDS2TJ152T | 1.5K 1/4W [M] |
| R612 | ERDS2TJ152T | 1.5K 1/4W [M] |
| R613 | ERDS2TJ392T | 3.9K 1/4W [M] |
| R614 | ERDS2TJ392T | 3.9K 1/4W [M] |
| R617 | ERDS2TJ563T | 56K 1/4W [M] |
| R618 | ERDS2TJ563T | 56K 1/4W [M] |
| R619 | ERDS2TJ124T | 120K 1/4W [M] |
| R620 | ERDS2TJ124T | 120K 1/4W [M] |
| R623 | ERDS2TJ684T | 680K 1/4W [M] |
| R624 | ERDS2TJ103T | 10K 1/4W [M] |
| R626 | ERDS2TJ124T | 120K 1/4W [M] |
| R627 | ERDS2TJ154T | 150K 1/4W [M] |
| R628 | ERDS2TJ184T | 180K 1/4W [M] |
| R629 | ERDS2TJ124T | 120K 1/4W [M] |
| R631 | ERDS2TJ152T | 1.5K 1/4W [M] |
| R632 | ERDS2TJ152T | 1.5K 1/4W [M] |
| R633 | ERDS1FVJ272T | 2.7K 1/2W ⚠[M] |
| R634 | ERDS1FVJ272T | 2.7K 1/2W ⚠[M] |
| R635 | ERDS1FVJ561T | 560 1/2W ⚠[M] |
| R637 | ERDS2TJ223T | 22K 1/4W [M] |
| R638 | ERDS2TJ104T | 100K 1/4W [M] |
| R639 | ERDS2TJ100T | 10 1/4W [M] |
| R640 | ERDS2TJ100T | 10 1/4W [M] |
| R641 | ERDS1FVJ100T | 10 1/2W ⚠[M] |
| R642 | ERDS1FVJ100T | 10 1/2W ⚠[M] |
| R645 | ERDS1FVJ100T | 10 1/2W ⚠[M] |
| R646 | ERDS1FVJ100T | 10 1/2W ⚠[M] |
| R647 | ERD2FCVJ4R7T | 4.7 1/4W [M] |
| R648 | ERD2FCVJ4R7T | 4.7 1/4W [M] |
| R700 | ERDS2TJ104T | 100K 1/4W [M] |
| R701 | ERDS2TJ104T | 100K 1/4W [M] |
| R701 | ERJ6GEYJ4R7A | 4.7 1/10W [M] |
| R702 | ERDS2TJ102T | 1K 1/4W [M] |
| R702 | ERJ6GEYJ822A | 8.2K 1/10W [M] |
| R703 | ERDS2TJ221T | 220 1/4W [M] |
| R704 | ERDS2TJ221T | 220 1/4W [M] |
| R704 | ERJ6GEYJ102A | 1K 1/10W [M] |
| R705 | ERDS2TJ103T | 10K 1/4W [M] |
| R705 | ERJ6GEYJ124A | 120K 1/10W [M] |
| R706 | ERDS2TJ103T | 10K 1/4W [M] |
| R706 | ERJ6GEYJ102A | 1K 1/10W [M] |
| R707 | ERDS2TJ103T | 10K 1/4W [M] |
| R707 | ERJ6GEYJ474A | 470K 1/10W [M] |
| R708 | ERDS2TJ102T | 1K 1/4W [M] |
| R708 | ERJ6GEYJ154A | 150K 1/10W [M] |
| R709 | ERDS2TJ101T | 100 1/4W [M] |
| R709 | ERJ6GEYJ473A | 47K 1/10W [M] |
| R710 | ERDS2TJ101T | 100 1/4W [M] |
| R710 | ERJ6GEYJ103A | 10K 1/10W [M] |
| R711 | ERDS2TJ101T | 100 1/4W [M] |
| R711 | ERJ6GEYJ154A | 150K 1/10W [M] |
| R712 | ERDS2TJ101T | 100 1/4W [M] |
| R712 | ERJ6GEYJ221A | 220 1/10W [M] |
| R713 | ERDS2TJ103T | 10K 1/4W [M] |
| R714 | ERDS2TJ223T | 22K 1/4W [M] |
| R715 | ERDS2TJ104T | 100K 1/4W [M] |
| R715 | ERJ6GEYJ122A | 1.2K 1/10W [M] |
| R717 | ERJ6GEYJ102A | 1K 1/10W [M] |
| R718 | ERDS2TJ152T | 1.5K 1/4W [M] |
| R718 | ERJ6GEYJ102A | 1K 1/10W [M] |
| R719 | ERJ6GEYJ102A | 1K 1/10W [M] |
| R720 | ERDS2TJ223T | 22K 1/4W [M] |
| R720 | ERJ6GEYJ102A | 1K 1/10W [M] |
| R721 | ERJ6GEYJ101A | 100 1/10W [M] |
| R723 | ERJ6GEYJ122A | 1.2K 1/10W [M] |
| R724 | ERJ6GEYJ333A | 33K 1/10W [M] |
| R725 | ERJ6GEYJ122A | 1.2K 1/10W [M] |
| R727 | ERJ6GEYJ682A | 6.8K 1/10W [M] |
| R728 | ERJ6GEYJ682A | 6.8K 1/10W [M] |
| R729 | ERJ6GEYJ562A | 5.6K 1/10W [M] |
| R731 | ERJ6GEYJ472A | 4.7K 1/10W [M] |
| R732 | ERDS2TJ103T | 10K 1/4W [M] |
| R734 | ERJ6GEYJ101A | 100 1/10W [M] |
| R735 | ERJ6GEYJ101A | 100 1/10W [M] |
| R736 | ERJ6GEYJ101A | 100 1/10W [M] |
| R738 | ERJ6GEYJ223A | 22K 1/10W [M] |
| R741 | ERDS2TJ224T | 220K 1/4W [M] |
| R741 | ERJ6GEYJ562A | 5.6K 1/10W [M] |
| R742 | ERDS2TJ103T | 10K 1/4W [M] |
| R742 | ERJ6GEYJ562A | 5.6K 1/10W [M] |
| R743 | ERDS2TJ103T | 10K 1/4W [M] |
| R743 | ERJ6GEYJ562A | 5.6K 1/10W [M] |
| R744 | ERDS2TJ473T | 47K 1/4W [M] |
| R744 | ERJ6GEYJ104A | 100K 1/10W [M] |
| R745 | ERDS2TJ473T | 47K 1/4W [M] |
| R745 | ERJ6GEYJ155A | 1.5M 1/10W [M] |
| R747 | ERDS2TJ104T | 100K 1/4W [M] |
| R748 | ERDS2TJ473T | 47K 1/4W [M] |
| R749 | ERDS2TJ101T | 100 1/4W [M] |
| R749 | ERJ6GEYJ682A | 6.8K 1/10W [M] |
| R751 | ERDS2TJ473T | 47K 1/4W [M] |
| R752 | ERDS2TJ104T | 100K 1/4W [M] |
| R752 | ERJ8GEYJ220A | 22 1/8W [M] |
| R753 | ERDS2TJ104T | 100K 1/4W [M] |
| R755 | ERDS2TJ104T | 100K 1/4W [M] |
| R756 | ERDS2TJ681T | 680 1/4W [M] |
| R757 | ERDS2TJ106T | 10M 1/4W [M] |
| R758 | ERDS2TJ101T | 100 1/4W [M] |
| R759 | ERDS2TJ334T | 330K 1/4W [M] |
| R760 | ERDS2TJ103T | 10K 1/4W [M] |
| R761 | ERDS2TJ104T | 100K 1/4W [M] |
| R762 | ERDS2TJ104T | 100K 1/4W [M] |
| R763 | ERDS2TJ101T | 100 1/4W [M] |
| R764 | ERDS2TJ103T | 10K 1/4W [M] |
| R765 | ERDS2TJ103T | 10K 1/4W [M] |
| R766 | ERDS2TJ103T | 10K 1/4W [M] |
| R767 | ERDS2TJ680T | 68 1/4W [M] |
| R768 | ERDS2TJ680T | 68 1/4W [M] |
| R769 | ERDS2TJ103T | 10K 1/4W [M] |
| R770 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R770 | ERJ6GEYJ224A | 220K 1/10W [M] |
| R771 | ERDS2TJ223T | 22K 1/4W [M] |
| R772 | ERDS2TJ471T | 470 1/4W [M] |
| R773 | ERDS2TJ223T | 22K 1/4W [M] |
| R774 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R775 | ERDS2TJ473T | 47K 1/4W [M] |
| R776 | ERDS2TJ473T | 47K 1/4W [M] |
| R777 | ERDS2TJ104T | 100K 1/4W [M] |
| R778 | ERDS2TJ104T | 100K 1/4W [M] |
| R779 | ERDS2TJ104T | 100K 1/4W [M] |
| R780 | ERDS2TJ223T | 22K 1/4W [M] |
| R781 | ERDS2TJ223T | 22K 1/4W [M] |
| R782 | ERDS2TJ102T | 1K 1/4W [M] |
| R783 | ERDS2TJ103T | 10K 1/4W [M] |
| R784 | ERDS2TJ102T | 1K 1/4W [M] |
| R785 | ERDS2TJ123T | 12K 1/4W [M] |
| R786 | ERDS2TJ123T | 12K 1/4W [M] |
| R787 | ERDS2TJ102T | 1K 1/4W [M] |
| R788 | ERDS2TJ102T | 1K 1/4W [M] |
| R789 | ERDS2TJ104T | 100K 1/4W [M] |
| R795 | ERDS2TJ104T | 100K 1/4W [M] |
| R796 | ERDS2TJ104T | 100K 1/4W [M] |
| R801 | ERDS2TJ393T | 39K 1/4W [M] |
| R802 | ERDS2TJ393T | 39K 1/4W [M] |
| R803 | ERDS2TJ153T | 15K 1/4W [M] |
| R804 | ERDS2TJ153T | 15K 1/4W [M] |
| R805 | ERDS2TJ473T | 47K 1/4W [M] |
| R806 | ERDS2TJ333T | 33K 1/4W [M] |
| R807 | ERDS2TJ273T | 27K 1/4W [M] |
| R808 | ERDS2TJ104T | 100K 1/4W [M] |
| R809 | ERDS2TJ223T | 22K 1/4W [M] |
| R810 | ERDS2TJ223T | 22K 1/4W [M] |
| R811 | ERDS2TJ223T | 22K 1/4W [M] |
| R812 | ERDS2TJ333T | 33K 1/4W [M] |
| R813 | ERDS2TJ333T | 33K 1/4W [M] |
| R814 | ERDS2TJ333T | 33K 1/4W [M] |
| R815 | ERDS2TJ473T | 47K 1/4W [M] |
| R816 | ERDS2TJ473T | 47K 1/4W [M] |
| R817 | ERDS2TJ103T | 10K 1/4W [M] |
| R818 | ERDS2TJ153T | 15K 1/4W [M] |
| R819 | ERDS2TJ393T | 39K 1/4W [M] |
| R820 | ERDS2TJ274T | 270K 1/4W [M] |
| R821 | ERDS2TJ822T | 8.2K 1/4W [M] |
| R822 | ERDS2TJ102T | 1K 1/4W [M] |
| R822 | ERDS2TJ273T | 27K 1/4W [M] |
| R823 | ERDS2TJ105T | 1M 1/4W [M] |
| R823 | ERDS2TJ824T | 820K 1/4W [M] |
| R824 | ERDS2TJ823T | 82K 1/4W [M] |
| R825 | ERDS2TJ332T | 3.3K 1/4W [M] |
| R826 | ERDS2TJ332T | 3.3K 1/4W [M] |
| R827 | ERDS2TJ332T | 3.3K 1/4W [M] |
| R828 | ERDS2TJ823T | 82K 1/4W [M] |
| R829 | ERDS2TJ223T | 22K 1/4W [M] |
| R830 | ERDS2TJ223T | 22K 1/4W [M] |
| R831 | ERDS2TJ562T | 5.6K 1/4W [M] |
| R832 | ERDS2TJ123T | 12K 1/4W [M] |
| R833 | ERDS2TJ104T | 100K 1/4W [M] |
| R834 | ERDS2TJ104T | 100K 1/4W [M] |
| R835 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R836 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R837 | ERDS2TJ182T | 1.8K 1/4W [M] |
| R838 | ERDS2TJ182T | 1.8K 1/4W [M] |
| R839 | ERDS2TJ102T | 1K 1/4W [M] |
| R840 | ERDS2TJ102T | 1K 1/4W [M] |
| R841 | ERDS2TJ121T | 120 1/4W [M] |
| R842 | ERDS2TJ104T | 100K 1/4W [M] |
| R843 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R844 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R845 | ERDS2TJ104T | 100K 1/4W [M] |
| R846 | ERDS2TJ122T | 1.2K 1/4W [M] |
| R847 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R848 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R849 | ERDS2TJ122T | 1.2K 1/4W [M] |
| R850 | ERDS2TJ222T | 2.2K 1/4W [M] |

| Ref. No. | Part No. | Values & Remarks | | | Ref. No. | Part No. | Values & Remarks | | | Ref. No. | Part No. | Values & Remarks | | | Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R851 | ERDS2TJ473T | 47K | 1/4W | [M] | R907 | ERDS2TJ683T | 68K | 1/4W | [M] | R958 | ERDS2TJ101T | 100 | 1/4W | [M] | C104 | ECBT1H102KB5 | 1000P | 50V | [M] |
| R852 | ERDS2TJ393T | 39K | 1/4W | [M] | R908 | ERDS2TJ101T | 100 | 1/4W | [M] | R960 | ERDS2TJ182T | 1.8K | 1/4W | [M] | C104 | ECFR1C223MR | 0.022 | 16V | [M] |
| R853 | ERDS2TJ473T | 47K | 1/4W | [M] | R911 | ERDS2TJ271T | 270 | 1/4W | [M] | R961 | ERDS2TJ222T | 2.2K | 1/4W | [M] | C105 | ECBT1H102KB5 | 1000P | 50V | [M] |
| R854 | ERDS2TJ393T | 39K | 1/4W | [M] | R912 | ERDS2TJ271T | 270 | 1/4W | [M] | R962 | ERDS2TJ222T | 2.2K | 1/4W | [M] | C105 | ECBT1H681KB5 | 680P | 50V | [M] |
| R855 | ERDS2TJ104T | 100K | 1/4W | [M] | R913 | ERDS2TJ271T | 270 | 1/4W | [M] | R963 | ERDS2TJ122T | 1.2K | 1/4W | [M] | C106 | ECBT1C103NS5 | 0.01 | 16V | [M] |
| R856 | ERDS2TJ123T | 12K | 1/4W | [M] | R914 | ERDS2TJ103T | 10K | 1/4W | [M] | R964 | ERDS2TJ182T | 1.8K | 1/4W | [M] | C106 | ECBT1H681KB5 | 680P | 50V | [M] |
| R857 | ERDS2TJ123T | 12K | 1/4W | [M] | R915 | ERDS2TJ103T | 10K | 1/4W | [M] | R965 | ERDS2TJ182T | 1.8K | 1/4W | [M] | C107 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| R859 | ERDS2TJ121T | 120 | 1/4W | [M] | R917 | ERDS2TJ271T | 270 | 1/4W | [M] | R966 | ERDS2TJ102T | 1K | 1/4W | [M] | C108 | ECBT1H8R2KC5 | 8.2P | 50V | [M] |
| R860 | ERDS2TJ121T | 120 | 1/4W | [M] | R918 | ERDS2TJ223T | 22K | 1/4W | [M] | R968 | ERDS2TJ122T | 1.2K | 1/4W | [M] | C108 | ECEA1CKA330B | 33 | 16V | [M] |
| R861 | ERDS2TJ105T | 1M | 1/4W | [M] | R919 | ERDS2TJ223T | 22K | 1/4W | [M] | R969 | ERDS2TJ122T | 1.2K | 1/4W | [M] | C109 | ECBT1H102KB5 | 1000P | 50V | [M] |
| R862 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R920 | ERDS2TJ271T | 270 | 1/4W | [M] | R971 | ERDS2TJ102T | 1K | 1/4W | [M] | C109 | ECEA1CKA101B | 100 | 16V | [M] |
| R863 | ERDS2TJ105T | 1M | 1/4W | [M] | R921 | ERDS2TJ271T | 270 | 1/4W | [M] | R972 | ERDS2TJ821T | 820 | 1/4W | [M] | C110 | ECBT1C103NS5 | 0.01 | 16V | [M] |
| R864 | ERDS2TJ105T | 1M | 1/4W | [M] | R922 | ERDS2TJ271T | 270 | 1/4W | [M] | R973 | ERDS2TJ102T | 1K | 1/4W | [M] | C111 | ECBT1H561KB5 | 560P | 50V | [M] |
| R865 | ERDS2TJ102T | 1K | 1/4W | [M] | R923 | ERDS2TJ271T | 270 | 1/4W | [M] | R973 | ERDS2TJ393T | 39K | 1/4W | [M] | C111 | ECEA1EKA4R7B | 4.7 | 25V | [M] |
| R866 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R924 | ERDS2TJ271T | 270 | 1/4W | [M] | R974 | ERDS2TJ102T | 1K | 1/4W | [M] | C112 | ECBT1C103NS5 | 0.01 | 16V | [M] |
| R867 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R925 | ERDS2TJ271T | 270 | 1/4W | [M] | R975 | ERDS2TJ102T | 1K | 1/4W | [M] | C112 | ECBT1H561KB5 | 560P | 50V | [M] |
| R868 | ERDS2TJ102T | 1K | 1/4W | [M] | R926 | ERDS2TJ271T | 270 | 1/4W | [M] | R976 | ERDS2TJ102T | 1K | 1/4W | [M] | C113 | ECBT1H102KB5 | 1000P | 50V | [M] |
| R869 | ERDS2TJ102T | 1K | 1/4W | [M] | R927 | ERDS2TJ181T | 180 | 1/4W | [M] | R977 | ERDS2TJ102T | 1K | 1/4W | [M] | C113 | ECEA0JKA221B | 220 | 6.3V | [M] |
| R870 | ERDS2TJ102T | 1K | 1/4W | [M] | R928 | ERDS2TJ682T | 6.8K | 1/4W | [M] | R978 | ERDS2TJ102T | 1K | 1/4W | [M] | C114 | ECEA0JKA221B | 220 | 6.3V | [M] |
| R871 | ERDS2TJ105T | 1M | 1/4W | [M] | R929 | ERDS2TJ682T | 6.8K | 1/4W | [M] | R979 | ERDS2TJ271T | 270 | 1/4W | [M] | C114 | ECEA1HKA3R3B | 3.3 | 50V | [M] |
| R872 | ERDS2TJ105T | 1M | 1/4W | [M] | R930 | ERDS2TJ103T | 10K | 1/4W | [M] | R980 | ERDS2TJ271T | 270 | 1/4W | [M] | C115 | ECEA1EKA4R7B | 4.7 | 25V | [M] |
| R873 | ERD2FCVJ4R7T | 4.7 | 1/4W | [M] | R931 | ERDS2TJ271T | 270 | 1/4W | [M] | R981 | ERDS2TJ271T | 270 | 1/4W | [M] | C115 | ECFR1C333JR | 0.033 | 16V | [M] |
| R873 | ERDS2TJ105T | 1M | 1/4W | [M] | R932 | ERDS2TJ271T | 270 | 1/4W | [M] | R982 | ERDS2TJ271T | 270 | 1/4W | [M] | C116 | ECFR1C333JR | 0.033 | 16V | [M] |
| R874 | ERDS2TJ104T | 100K | 1/4W | [M] | R933 | ERDS2TJ271T | 270 | 1/4W | [M] | R983 | ERDS2TJ331T | 330 | 1/4W | [M] | C116 | ECFR1C333KR | 0.033 | 16V | [M] |
| R875 | ERDS2TJ102T | 1K | 1/4W | [M] | R934 | ERDS2TJ271T | 270 | 1/4W | [M] | R984 | ERDS2TJ271T | 270 | 1/4W | [M] | C117 | ECEA1HKM010B | 1 | 50V | [M] |
| R876 | ERDS2TJ103T | 10K | 1/4W | [M] | R935 | ERDS2TJ271T | 270 | 1/4W | [M] | R985 | ERDS2TJ331T | 330 | 1/4W | [M] | C117 | ECFR1C183KR | 0.018 | 16V | [M] |
| R877 | ERDS2TJ105T | 1M | 1/4W | [M] | R936 | ERDS2TJ103T | 10K | 1/4W | [M] | R986 | ERDS2TJ271T | 270 | 1/4W | [M] | C118 | ECEA1HKM010B | 1 | 50V | [M] |
| R878 | ERDS2TJ105T | 1M | 1/4W | [M] | R937 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R987 | ERDS2TJ102T | 1K | 1/4W | [M] | C118 | ECFR1C183KR | 0.018 | 16V | [M] |
| R879 | ERDS2TJ105T | 1M | 1/4W | [M] | R938 | ERDS2TJ101T | 100 | 1/4W | [M] | R988 | ERDS2TJ102T | 1K | 1/4W | [M] | C119 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| R880 | ERDS2TJ221T | 220 | 1/4W | [M] | R939 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R989 | ERDS2TJ122T | 1.2K | 1/4W | [M] | C119 | ECQP2A391JZT | 390P | 100V | [M] |
| R881 | ERDS2TJ221T | 220 | 1/4W | [M] | R940 | ERDS2TJ682T | 6.8K | 1/4W | [M] | R990 | ERDS2TJ182T | 1.8K | 1/4W | [M] | C120 | ECEA1CKA100B | 10 | 16V | [M] |
| R881 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R941 | ERDS2TJ682T | 6.8K | 1/4W | [M] | R992 | ERDS2TJ331T | 330 | 1/4W | [M] | C120 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| R882 | ERDS2TJ222T | 2.2K | 1/4W | [M] | R942 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R993 | ERDS2TJ331T | 330 | 1/4W | [M] | C121 | ECEA1HKA010B | 1 | 50V | [M] |
| R883 | ERDS2TJ563T | 56K | 1/4W | [M] | R944 | ERDS2TJ101T | 100 | 1/4W | [M] | R994 | ERDS2TJ104T | 100K | 1/4W | [M] | C121 | ECEA1HKAR47B | 0.47 | 50V | [M] |
| R884 | ERDS2TJ563T | 56K | 1/4W | [M] | R945 | ERDS2TJ104T | 100K | 1/4W | [M] | R995 | ERDS2TJ104T | 100K | 1/4W | [M] | C122 | ECEA1HKA010B | 1 | 50V | [M] |
| R885 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R946 | ERDS2TJ272T | 2.7K | 1/4W | [M] | R996 | ERDS2TJ104T | 100K | 1/4W | [M] | C123 | ECBT1H102KB5 | 1000P | 50V | [M] |
| R886 | ERDS2TJ332T | 3.3K | 1/4W | [M] | R947 | ERDS2TJ101T | 100 | 1/4W | [M] | R997 | ERDS2TJ104T | 100K | 1/4W | [M] | C123 | ECEA1HKA010B | 1 | 50V | [M] |
| R891 | ERDS2TJ331T | 330 | 1/4W | [M] | R948 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R998 | ERDS2TJ104T | 100K | 1/4W | [M] | C124 | ECBT1H101KB5 | 100P | 50V | [M] |
| R893 | ERDS2TJ103T | 10K | 1/4W | [M] | R949 | ERDS2TJ472T | 4.7K | 1/4W | [M] | R999 | ERDS2TJ104T | 100K | 1/4W | [M] | C124 | ECBT1H102KB5 | 1000P | 50V | [M] |
| R894 | ERDS2TJ153T | 15K | 1/4W | [M] | R950 | ERDS2TJ222T | 2.2K | 1/4W | [M] | | | | | | C125 | ECEA1CKA220B | 22 | 16V | [M] |
| R898 | ERDS2TJ824T | 820K | 1/4W | [M] | R951 | ERDS2TJ101T | 100 | 1/4W | [M] | | | **CAPACITORS** | | | C125 | ECFR1C473MR | 0.047 | 16V | [M] |
| R899 | ERDS2TJ273T | 27K | 1/4W | [M] | R952 | ERDS2TJ222T | 2.2K | 1/4W | [M] | | | | | | C126 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| R900 | ERDS2TJ103T | 10K | 1/4W | [M] | R952 | ERDS2TJ821T | 820 | 1/4W | [M] | C1 | ECA1AKF820E | 82 | 10V | [M] | C126 | ECFR1C473MR | 0.047 | 16V | [M] |
| R901 | ERDS2TJ223T | 22K | 1/4W | [M] | R953 | ERDS2TJ272T | 2.7K | 1/4W | [M] | C101 | ECBT1C103NS5 | 0.01 | 16V | [M] | C127 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| R902 | ERDS2TJ103T | 10K | 1/4W | [M] | R953 | ERDS2TJ393T | 39K | 1/4W | [M] | C101 | ECBT1H102KB5 | 1000P | 50V | [M] | C127 | ECEA1CKA220B | 22 | 16V | [M] |
| R903 | ERDS2TJ103T | 10K | 1/4W | [M] | R954 | ERDS2TJ272T | 2.7K | 1/4W | [M] | C102 | ECBT1H102KB5 | 1000P | 50V | [M] | C128 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| R904 | ERDS2TJ223T | 22K | 1/4W | [M] | R955 | ERDS2TJ101T | 100 | 1/4W | [M] | C102 | ECEA1CKA101B | 100 | 16V | [M] | C129 | ECBT1H821KB5 | 820P | 50V | [M] |
| R905 | ERDS2TJ683T | 68K | 1/4W | [M] | R956 | ERDS2TJ101T | 100 | 1/4W | [M] | C103 | ECBT1C103NS5 | 0.01 | 16V | [M] | C129 | ECEA0JKA101B | 100 | 6.3V | [M] |
| R906 | ERDS2TJ683T | 68K | 1/4W | [M] | R957 | ERDS2TJ101T | 100 | 1/4W | [M] | C103 | ECBT1H681KB5 | 680P | 50V | [M] | C130 | ECBT1H821KB5 | 820P | 50V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C130 | ECEA0JKA101B | 100 | 6.3V | [M] |
| C131 | ECBT1H101KB5 | 100P | 50V | [M] |
| C131 | ECBT1H821KB5 | 820P | 50V | [M] |
| C132 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C132 | ECBT1H821KB5 | 820P | 50V | [M] |
| C133 | ECBT1H150JC5 | 15P | 50V | [M] |
| C133 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C134 | ECBT1H180JC5 | 18P | 50V | [M] |
| C134 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C135 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C136 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C137 | ECFR1C472KR | 4700P | 16V | [M] |
| C138 | ECBT1C103KS5 | 0.01 | 16V | [M] |
| C139 | ECEA1HKA2R2B | 2.2 | 50V | [M] |
| C139 | ECFR1C472KR | 4700P | 16V | [M] |
| C140 | ECEA1CKA100B | 10 | 16V | [M] |
| C141 | ECEA1HKA010B | 1 | 50V | [M] |
| C141 | ECEA1HKA0R1B | 0.1 | 50V | [M] |
| C142 | ECEA1HKA010B | 1 | 50V | [M] |
| C142 | ECFR1C223MR | 0.022 | 16V | [M] |
| C143 | ECBT1C472KR5 | 4700P | 16V | [M] |
| C143 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C144 | ECBT1C472KR5 | 4700P | 16V | [M] |
| C144 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C145 | ECEA1CKA100B | 10 | 16V | [M] |
| C146 | ECEA1CKA100B | 10 | 16V | [M] |
| C147 | ECBT1C152KR5 | 1500P | 16V | [M] |
| C147 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C148 | ECBT1C103NS5 | 0.01 | 16V | [M] |
| C148 | ECBT1C152KR5 | 1500P | 16V | [M] |
| C149 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C150 | ECEA1AKA470B | 47 | 10V | [M] |
| C151 | ECEA1HKA010B | 1 | 50V | [M] |
| C152 | ECEA1HKA010B | 1 | 50V | [M] |
| C153 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C154 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C155 | ECEA1CKA100B | 10 | 16V | [M] |
| C156 | ECEA1CKA100B | 10 | 16V | [M] |
| C161 | ECEA1CKA101B | 100 | 16V | [M] |
| C162 | ECEA1CU471B | 470 | 16V | [M] |
| C163 | ECEA1HKM010B | 1 | 50V | [M] |
| C164 | ECEA1HKM010B | 1 | 50V | [M] |
| C165 | ECEA1CKA100B | 10 | 16V | [M] |
| C166 | ECEA1CKA100B | 10 | 16V | [M] |
| C167 | ECEA1HKAR68B | 0.68 | 50V | [M] |
| C168 | ECEA1HKAR68B | 0.68 | 50V | [M] |
| C169 | ECEA1HKA4H7B | 4.7 | 50V | [M] |
| C170 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C171 | ECEA1CKA100B | 10 | 16V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C173 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| C174 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C175 | ECEA1VU221B | 220 | 35V | [M] |
| C176 | ECQV1H473JZ3 | 0.047 | 50V | [M] |
| C177 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C178 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C179 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| C180 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| C181 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| C182 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C183 | ECQV1H474JZ3 | 0.47 | 50V | [M] |
| C184 | ECQP1152JZT | 1500P | 100V | [M] |
| C185 | ECQP2A472JZT | 4700P | 100V | [M] |
| C186 | ECEA1AKA470B | 47 | 10V | [M] |
| C187 | ECBT1H101KB5 | 100P | 50V | [M] |
| C188 | ECBT1H101KB5 | 100P | 50V | [M] |
| C193 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C194 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C201 | ECEA1CKA101B | 100 | 16V | [M] |
| C202 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C203 | ECBT1H331KB5 | 330P | 50V | [M] |
| C204 | ECBT1H331KB5 | 330P | 50V | [M] |
| C205 | ECBT1C222KR5 | 2200P | 16V | [M] |
| C206 | ECBT1C222KR5 | 2200P | 16V | [M] |
| C303 | ECBT1H101KB5 | 100P | 50V | [M] |
| C304 | ECBT1H101KB5 | 100P | 50V | [M] |
| C305 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C306 | RCA1AM331BT | 330P | 10V | [M] |
| C307 | ECBT1H221KB5 | 220P | 50V | [M] |
| C308 | ECBT1H221KB5 | 220P | 50V | [M] |
| C309 | ECBT1C152KR5 | 1500P | 16V | [M] |
| C310 | ECEA1HKA0R1B | 0.1 | 50V | [M] |
| C311 | ECEA1HKA010B | 1 | 50V | [M] |
| C312 | ECEA1HKA010B | 1 | 50V | [M] |
| C313 | ECFR1C563KR | 0.056 | 16V | [M] |
| C314 | ECFR1C563KR | 0.056 | 16V | [M] |
| C315 | ECEA1HKAR15B | 0.15 | 50V | [M] |
| C316 | ECEA1HKAR15B | 0.15 | 50V | [M] |
| C317 | ECFR1C223KR | 0.022 | 16V | [M] |
| C318 | ECFR1C223KR | 0.022 | 16V | [M] |
| C319 | ECFR1C393KR | 0.039 | 16V | [M] |
| C320 | ECFR1C393KR | 0.039 | 16V | [M] |
| C321 | ECBT0J223NS5 | 0.022 | 6.3V | [M] |
| C322 | ECBT0J223NS5 | 0.022 | 6.3V | [M] |
| C323 | ECBT1C332KR5 | 3300P | 16V | [M] |
| C324 | ECBT1C332KR5 | 3300P | 16V | [M] |
| C325 | ECBT1C222KR5 | 2200P | 16V | [M] |
| C326 | ECBT1C222KR5 | 2200P | 16V | [M] |
| C327 | ECBT1C272KR5 | 2700P | 16V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C328 | ECBT1C272KR5 | 2700P | 16V | [M] |
| C329 | ECBT1C152KR5 | 1500P | 16V | [M] |
| C330 | ECBT1C152KR5 | 1500P | 16V | [M] |
| C331 | ECFR1C333KR | 0.033 | 16V | [M] |
| C332 | ECFR1C333KR | 0.033 | 16V | [M] |
| C333 | ECBT1H681KB5 | 680P | 50V | [M] |
| C334 | ECBT1H681KB5 | 680P | 50V | [M] |
| C335 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C336 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C337 | ECEA1HKAR15B | 0.15 | 50V | [M] |
| C338 | ECEA1HKAR15B | 0.15 | 50V | [M] |
| C339 | ECEA1HKAR15B | 0.15 | 50V | [M] |
| C340 | ECEA1HKAR15B | 0.15 | 50V | [M] |
| C341 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C342 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C343 | ECBT1H471KB5 | 470P | 50V | [M] |
| C344 | ECBT1H471KB5 | 470P | 50V | [M] |
| C345 | ECEA1AKA470B | 47 | 10V | [M] |
| C346 | ECEA1AKA470B | 47 | 10V | [M] |
| C347 | ECEA1CKA100B | 10 | 16V | [M] |
| C348 | ECEA1CKA100B | 10 | 16V | [M] |
| C349 | ECEA1CKA100B | 10 | 16V | [M] |
| C350 | ECEA1CKA100B | 10 | 16V | [M] |
| C351 | ECBT1H101KB5 | 100P | 50V | [M] |
| C352 | ECBT1H101KB5 | 100P | 50V | [M] |
| C353 | ECBT1H470J5 | 47P | 50V | [M] |
| C354 | ECBT1H470J5 | 47P | 50V | [M] |
| C355 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C356 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C357 | ECBT1H332KR5 | 3300P | 50V | [M] |
| C358 | ECBT1H332KR5 | 3300P | 50V | [M] |
| C359 | ECEA1CKA100B | 10 | 16V | [M] |
| C360 | ECEA1CKA100B | 10 | 16V | [M] |
| C365 | ECFR1C104MR | 0.1 | 16V | [M] |
| C366 | ECFR1C104MR | 0.1 | 16V | [M] |
| C368 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C369 | ECEA1HKA2R2B | 2.2 | 50V | [M] |
| C370 | ECEA1HKA2R2B | 2.2 | 50V | [M] |
| C371 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C372 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C373 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C374 | ECBT1H470J5 | 47P | 50V | [M] |
| C375 | ECBT1H470J5 | 47P | 50V | [M] |
| C376 | ECBT1H470J5 | 47P | 50V | [M] |
| C385 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C390 | ECEA1HKA3R3B | 3.3 | 50V | [M] |
| C391 | ECQV1H683JZ3 | 0.068 | 50V | [M] |
| C392 | ECQV1H683JZ3 | 0.068 | 50V | [M] |
| C393 | ECBT1H101KB5 | 100P | 50V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C394 | ECBT1H101KB5 | 100P | 50V | [M] |
| C395 | ECBT1H221KB5 | 220P | 50V | [M] |
| C501 | ECQV1H104JZ3 | 0.1 | 50V | [M] |
| C504 | ECEA1VM332B | 3300 | 35V | [M] |
| C505 | ECEA1VM562B | 5600 | 35V | [M] |
| C506 | ECEA1VM562B | 5600 | 35V | [M] |
| C507 | ECEA1VM332B | 3300 | 35V | [M] |
| C508 | ECEA1EM222B | 2200P | 25V | [M] |
| C509 | ECKR2H103ZF5 | 0.01 | 500V | [M] |
| C510 | ECKR2H103ZF5 | 0.01 | 500V | [M] |
| C511 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C512 | ECEA1CM221B | 220 | 16V | [M] |
| C513 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C514 | ECEA1AKA101B | 100 | 10V | [M] |
| C515 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C516 | ECEA1AKA220B | 22 | 10V | [M] |
| C517 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C518 | ECEA1CKA470B | 47 | 16V | [M] |
| C519 | ECBT1E223ZF5 | 0.022 | 25V | [M] |
| C520 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C521 | ECEA1CKA330B | 33 | 16V | [M] |
| C522 | ECEA1EM101B | 100 | 25V | [M] |
| C523 | RCA1EM102BT | 1000P | 25V | [M] |
| C524 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C525 | ECEA1AKA330B | 33 | 10V | [M] |
| C526 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C527 | ECEA1AM331B | 330 | 10V | [M] |
| C528 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C528 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C529 | ECEA1HM101B | 100 | 50V | [M] |
| C530 | ECEA1JM101B | 100 | 63V | [M] |
| C531 | ECKR2H102ZF5 | 1000P | 500V | [M] |
| C532 | ECEA1VKA100D | 10 | 35V | [M] |
| C533 | ECEA1HM101B | 100 | 50V | [M] |
| C534 | ECEA0JKA470B | 47 | 6.3V | [M] |
| C535 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C601 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C603 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C607 | ECBT1H471KB5 | 470P | 50V | [M] |
| C608 | ECBT1H471KB5 | 470P | 50V | [M] |
| C609 | ECBT1H471KB5 | 470P | 50V | [M] |
| C610 | ECBT1H471KB5 | 470P | 50V | [M] |
| C611 | ECBT1H150JC5 | 15P | 50V | [M] |
| C612 | ECBT1H150JC5 | 15P | 50V | [M] |
| C613 | ECBT1H220JC5 | 22P | 50V | [M] |
| C614 | ECBT1H220JC5 | 22P | 50V | [M] |
| C615 | ECKR2H103ZF5 | 0.01 | 500V | [M] |
| C616 | ECKR2H103ZF5 | 0.01 | 500V | [M] |
| C617 | ECEA1HKNR47B | 0.47 | 50V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C618 | ECEA1AU470B | 47 | 10V | [M] |
| C619 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C620 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C621 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C622 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C624 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C625 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C626 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C627 | ECBT1H473ZF5 | 0.047 | 50V | [M] |
| C630 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C631 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C641 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C642 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C646 | ECBT1H101KB5 | 100P | 50V | [M] |
| C647 | ECBT1H101KB5 | 100P | 50V | [M] |
| C651 | ECEA2AM100B | 10 | 100V | [M] |
| C701 | ECEA0JKA330I | 33 | 6.3V | [M] |
| C702 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C703 | ECEA0JKA101I | 100 | 6.3V | [M] |
| C704 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C706 | ECUZ1H272KBN | 2700P | 50V | [M] |
| C707 | ECUZ1E273KBN | 0.027 | 25V | [M] |
| C710 | ECUV1H121KCN | 120P | 50V | [M] |
| C711 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C712 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C713 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C714 | ECEA0JKA101I | 100 | 6.3V | [M] |
| C715 | ECUZ1H182KBN | 1800P | 50V | [M] |
| C716 | ECUZ1H821KBN | 820P | 50V | [M] |
| C717 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C718 | ECUZ1C224KBN | 0.22 | 16V | [M] |
| C721 | ECUZ1H150JCN | 15P | 50V | [M] |
| C722 | ECUZ1H150JCN | 15P | 50V | [M] |
| C723 | ECEA1AKA221I | 220 | 10V | [M] |
| C724 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C725 | ECUZ1H102KBN | 1000P | 50V | [M] |
| C726 | ECUZ1H102KBN | 1000P | 50V | [M] |
| C727 | ECA1HAK010XI | 1 | 50V | [M] |
| C728 | ECA1HAK010XI | 1 | 50V | [M] |
| C730 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C731 | ECEA0JKA221I | 220 | 6.3V | [M] |
| C732 | ECEA0JKA221I | 220 | 6.3V | [M] |
| C733 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C734 | ECEA1AKA221I | 220 | 10V | [M] |
| C735 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C736 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C737 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C738 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C739 | ECUZ1H103KBN | 0.01 | 50V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C742 | ECUZ1E273KBN | 0.027 | 25V | [M] |
| C743 | ECUZ1E104ZFN | 0.1 | 25V | [M] |
| C744 | ECUZ1E123KBN | 0.012P | 25V | [M] |
| C745 | ECUZ1C473MBM | 0.047 | 16V | [M] |
| C747 | ECUV1H221KBN | 220P | 50V | [M] |
| C748 | ECUZ1H471KBN | 470P | 50V | [M] |
| C749 | ECUZ1H182KBN | 1800P | 50V | [M] |
| C750 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C751 | ECUZ1E104MBN | 0.1 | 25V | [M] |
| C752 | ECUV1H332KBN | 3300P | 50V | [M] |
| C753 | ECUZ1H471KBM | 470P | 50V | [M] |
| C754 | ECUZ1H471KBN | 470P | 50V | [M] |
| C761 | ECUZ1H471KBN | 470P | 50V | [M] |
| C762 | ECUZ1H471KBN | 470P | 50V | [M] |
| C801 | ECQV1H474JZ3 | 0.47 | 50V | [M] |
| C802 | ECEA1HKA3R3B | 3.3 | 50V | [M] |
| C803 | ECQV1H474JZ3 | 0.47 | 50V | [M] |
| C804 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C805 | ECEA1HKAR47B | 0.47 | 50V | [M] |
| C806 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C807 | ECEA1HKAR47B | 0.47 | 50V | [M] |
| C808 | ECEA1CKA100B | 10 | 16V | [M] |
| C809 | ECEA1HKA010B | 1 | 50V | [M] |
| C810 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C811 | ECEA1CKA330B | 33 | 16V | [M] |
| C812 | ECEA1CKA330B | 33 | 16V | [M] |
| C813 | ECA1CM221B | 220 | 16V | [M] |
| C814 | ECEA1CKA100B | 10 | 16V | [M] |
| C815 | ECEA1CKA100B | 10 | 16V | [M] |
| C816 | ECEA1CKA100B | 10 | 16V | [M] |
| C817 | ECEA1CKA100B | 10 | 16V | [M] |
| C818 | ECEA1HKA2R2B | 2.2 | 50V | [M] |
| C819 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C820 | ECEA1HKAR33B | 0.33 | 50V | [M] |
| C821 | ECA1CM221B | 220 | 16V | [M] |
| C822 | ECBT1H101KB5 | 100P | 50V | [M] |
| C823 | ECBT1H101KB5 | 100P | 50V | [M] |
| C824 | ECA1CM221B | 220 | 16V | [M] |
| C825 | ECBT1H330J5 | 33P | 50V | [M] |
| C826 | ECBT1H330J5 | 33P | 50V | [M] |
| C827 | ECBT1H330J5 | 33P | 50V | [M] |
| C828 | ECFR1C823MR | 0.082 | 16V | [M] |
| C829 | ECFR1C332KR | 3300P | 16V | [M] |
| C830 | ECFR1C823MR | 0.082 | 16V | [M] |
| C831 | ECEA1HKAR47B | 0.47 | 50V | [M] |
| C832 | ECQV1H473JZ3 | 0.047 | 50V | [M] |
| C833 | ECA1CM221B | 220 | 16V | [M] |
| C834 | ECEA1HKAR47B | 0.47 | 50V | [M] |
| C835 | ECEA1AKA470B | 47 | 10V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C836 | ECEA1HKA010B | 1 | 50V | [M] |
| C837 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C838 | ECBT1H101KB5 | 100P | 50V | [M] |
| C839 | ECBT1H101KB5 | 100P | 50V | [M] |
| C840 | ECEA1CKA100B | 10 | 16V | [M] |
| C841 | ECEA1CKA100B | 10 | 16V | [M] |
| C842 | ECEA1CKA100B | 10 | 16V | [M] |
| C842 | ECEA1HKAR47B | 0.47 | 50V | [M] |
| C843 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C844 | ECEA1HKAR47B | 0.47 | 50V | [M] |
| C845 | ECEA1HKA4R7B | 4.7 | 50V | [M] |
| C846 | ECQV1H474JZ3 | 0.47 | 50V | [M] |
| C847 | ECEA1HKA3R3B | 3.3 | 50V | [M] |
| C848 | ECQV1H474JZ3 | 0.47 | 50V | [M] |
| C849 | ECEA1CKA100B | 10 | 16V | [M] |
| C850 | ECEA1CKA100B | 10 | 16V | [M] |
| C851 | ECBT1C222KR5 | 2200P | 16V | [M] |
| C851 | ECEA1CKA470B | 47 | 16V | [M] |
| C852 | ECBT1C222KR5 | 2200P | 16V | [M] |
| C852 | ECBT1H681KB5 | 680P | 50V | [M] |
| C853 | ECFR1C473KR | 0.047 | 16V | [M] |
| C854 | ECFR1C683KR | 0.068 | 16V | [M] |
| C855 | ECFR1C563KR | 0.056 | 16V | [M] |
| C856 | ECFR1C683KR | 0.068 | 16V | [M] |
| C857 | ECFR1C823MR | 0.082 | 16V | [M] |
| C859 | ECBT1H101KB5 | 100P | 50V | [M] |
| C860 | ECBT1H101KB5 | 100P | 50V | [M] |
| C861 | ECEA1HKA010B | 1 | 50V | [M] |
| C862 | ECEA1HKA010B | 1 | 50V | [M] |
| C863 | ECEA1CKA220B | 22 | 16V | [M] |
| C864 | ECEA1CKA220B | 22 | 16V | [M] |
| C865 | ECEA1HKA010B | 1 | 50V | [M] |
| C866 | ECEA1HKA010B | 1 | 50V | [M] |
| C867 | ECEA1CKA330B | 33 | 16V | [M] |
| C868 | ECEA1CKA330B | 33 | 16V | [M] |
| C869 | ECEA1CKA330B | 33 | 16V | [M] |
| C870 | ECEA1CKA100B | 10 | 16V | [M] |
| C871 | ECBT1H470J5 | 47P | 50V | [M] |
| C872 | ECBT1H470J5 | 47P | 50V | [M] |
| C873 | ECEA0JKA101B | 100 | 6.3V | [M] |
| C874 | ECEA0JKA101B | 100 | 6.3V | [M] |
| C876 | ECEA1CKA330B | 33 | 16V | [M] |
| C877 | ECEA0JKA101B | 100 | 6.3V | [M] |
| C878 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C879 | ECFR1C683KR | 0.068 | 16V | [M] |
| C880 | ECFR1C393KR | 0.039 | 16V | [M] |
| C881 | ECQV1H154JZ3 | 0.15 | 50V | [M] |
| C882 | ECEA1CKA101B | 100 | 16V | [M] |
| C884 | ECFR1C104KR | 0.1 | 16V | [M] |

| Ref. No. | Part No. | Values & Remarks | | |
|---|---|---|---|---|
| C885 | ECBT1C562KR5 | 5600P | 16V | [M] |
| C887 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C888 | ECBT1H221KB5 | 220P | 50V | [M] |
| C889 | ECBT1H221KB5 | 220P | 50V | [M] |
| C890 | ECEA1HKA010B | 1 | 50V | [M] |
| C891 | ECEA1HKA010B | 1 | 50V | [M] |
| C892 | ECEA1HKA010B | 1 | 50V | [M] |
| C893 | ECEA1HKA010B | 1 | 50V | [M] |
| C894 | ECEA1HKA010B | 1 | 50V | [M] |
| C895 | ECBT1H101KB5 | 100P | 50V | [M] |
| C898 | ECFR1C393KR | 0.039 | 16V | [M] |
| C899 | ECBT0J153MS5 | 0.015 | 6.3V | [M] |
| C901 | ECBT1H101KB5 | 100P | 50V | [M] |
| C902 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C903 | ECBT1H101KB5 | 100P | 50V | [M] |
| C904 | ECBT1H101KB5 | 100P | 50V | [M] |
| C905 | ECBT1H101KB5 | 100P | 50V | [M] |
| C906 | ECBT1H101KB5 | 100P | 50V | [M] |
| C907 | ECBT1H101KB5 | 100P | 50V | [M] |
| C908 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| C909 | ECBT1C103MS5 | 0.01 | 16V | [M] |
| C910 | ECBT1H561KB5 | 560P | 50V | [M] |
| C911 | ECBT1H104ZF5 | 0.1 | 50V | [M] |
| C912 | ECBT1H561KB5 | 560P | 50V | [M] |
| C913 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C914 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C916 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C917 | ECBT1H331KB5 | 330P | 50V | [M] |
| C918 | ECBT1H561KB5 | 560P | 50V | [M] |
| C919 | ECBT1H561KB5 | 560P | 50V | [M] |
| C927 | ECBT1H561KB5 | 560P | 50V | [M] |
| C929 | ECBT1H561KB5 | 560P | 50V | [M] |
| C930 | ECBT1H561KB5 | 560P | 50V | [M] |
| C932 | ECBT1H561KB5 | 560P | 50V | [M] |
| C933 | ECBT1H101KB5 | 100P | 50V | [M] |
| C935 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C936 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C937 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C938 | ECBT1H150JC5 | 15P | 50V | [M] |
| C939 | ECBT1H180JC5 | 18P | 50V | [M] |
| C940 | ECBT1H680J5 | 68P | 50V | [M] |
| C941 | ECBT1H680J5 | 68P | 50V | [M] |
| C942 | ECBT1H560J5 | 56P | 50V | [M] |
| C943 | ECBT1H560J5 | 56P | 50V | [M] |
| C944 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C945 | ECBT1H102KB5 | 1000P | 50V | [M] |
| C946 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C947 | ECBT1E103ZF5 | 0.01 | 25V | [M] |
| C948 | ECBT1H471KB5 | 470P | 50V | [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| C949 | ECBT1H102KB5 | 1000P 50V [M] |
| C950 | ECBT1H102KB5 | 1000P 50V [M] |
| C951 | ECEA1VKA220B | 22 35V [M] |
| C953 | ECEA0JKA101B | 100 6.3V [M] |
| C954 | ECEA0JM102B | 1000 6.3V [M] |
| C956 | ECEA1AKA220B | 22 10V [M] |
| C963 | ECEA1CKA100B | 10 16V [M] |
| C965 | ECEA1VKA220B | 22 35V [M] |
| C966 | ECEA1HKA0R1B | 0.1 50V [M] |
| C967 | ECEA1HKA0R1B | 0.1 50V [M] |
| C968 | ECEA1HKA0R1B | 0.1 50V [M] |
| C969 | ECEA1HKA0R1B | 0.1 50V [M] |
| C970 | ECEA1HKA010B | 1 50V [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| C971 | ECEA1HKA010B | 1 50V [M] |
| C972 | ECEA1AM331B | 330 10V [M] |
| C973 | ECEA1HU3R3B | 3.3 50V [M] |
| C975 | ECBT1H101KB5 | 100P 50V [M] |
| C976 | ECBT1H101KB5 | 100P 50V [M] |
| C993 | ECBT1E223ZF5 | 0.022 25V [M] |
| C994 | ECBT1E223ZF5 | 0.022 25V [M] |
| C999 | ECBT1H102KB5 | 1000P 50V [M] |
| | | |
| | | **CHIP JUMPERS** |
| | | |
| RJ701 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ702 | ERJ8GEY0R00A | 0 1/8W [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| RJ703 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ704 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ705 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ706 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ707 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ708 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ709 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ710 | ERJ8GEY0R00A | 0 1/8W [M] |
| RJ721 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ722 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ723 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ724 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ725 | ERJ6GEY0R00A | 0 1/10W [M] |

| Ref. No. | Part No. | Values & Remarks |
|---|---|---|
| RJ726 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ727 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ728 | ERJ6GEY0R00A | 0 1/10W [M] |
| RJ750 | ERJ6GEY0R00A | 0 1/10W [M] |
| | | |
| | | **TEST JUMPERS** |
| | | |
| TJ701 | EYF8CU | TEST JUMPER [M] |
| | | |
| | | |
| | | |
| | | |
| | | |

## Packing Materials & Accessories

Notes: * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.
When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list .
* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area)
Parts without these indications can be used for all areas.
* The "(SF)" mark denotes the standard part.
* [M] indicates in the Remarks columns indicates parts supplied by **MESA.**
* Remote Control Unit : Supply period for three years from terminal of production.
* Reference for O/I book languages are as follows :

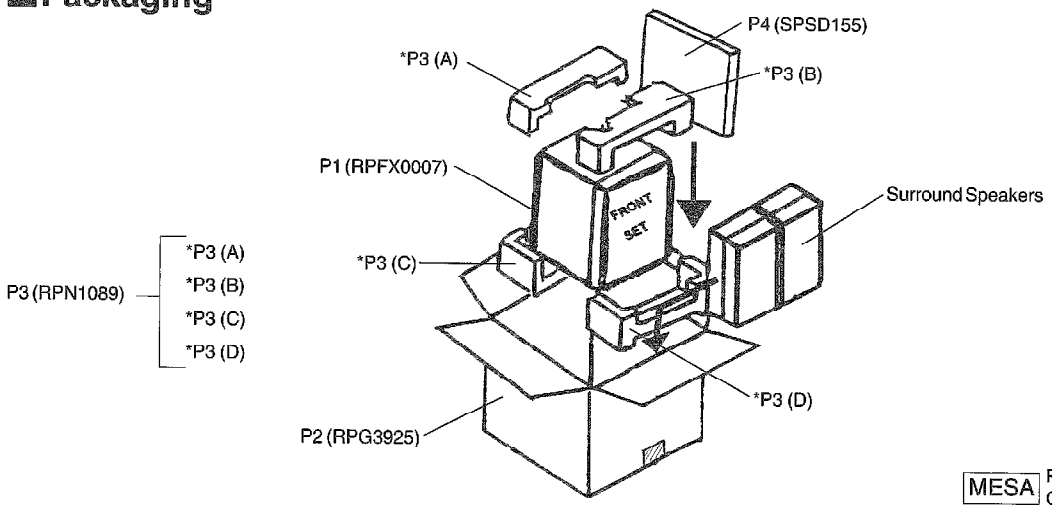
Ar : Arabic Cf : Canadian French Ch : Chinese Cz : Czech Da : Danish
Du : Dutch En : English Fr : French Ge : German It : Italian
Ko : Korean Po : Polish Ru : Russian Sp : Spanish Sw : Swedish

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | **PACKING MATERIALS** | |
| | | | |
| P1 | RPFX0007 | BAG (SET) | [M] |
| P2 | RPG3925 | PACKING CASE | [M] |
| P3 | RPN1089 | POLYFOAM | [M] |
| P4 | SPSD155 | ACCESSORY CASE | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | **ACCESSORIES** | |
| | | | |
| A1 | EUR644854 | REMOTE CONTROL | [M] |
| A1-1 | UR64EC1987 | R/C BATTERY COVER | [M] |
| A2 | RQT4438-B | O/I BOOK (En) | [M] |
| A2 | RQT4439-R | O/I BOOK (Ru) | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| A3 | RJA0019-2K | AC CORD (SF) | [M]⚠ |
| A4 | RSA0022 | AM LOOP ANT | [M] |
| A6 | RSA0007 | FM ANTENA | [M] |
| | | | |
| | | | |
| | | | |

## Packaging




MESA Printed in Singapore
G980600350 K/J/O/L